

Chapter 1

Introduction: Rationale and motivation for these Guidelines

This chapter sets out the scope and goals of these Guidelines on Measuring the Quality of the Working Environment, and the rationale for their production. It provides a definition of what the working environment is, and discusses its importance for both workers' well-being and firms' productivity.

1.1. Introduction

The concept of the “working environment” refers to the *combination of characteristics* defining the setting where workers operate. The concept is multidimensional and encompasses a broad range of non-pecuniary characteristics of the job, ranging from the nature of the work tasks assigned to each worker to the physical and social conditions under which these tasks are carried out, the characteristics of the firm or organisation where work takes place, the scheduling of working time, the prospects that the job provides to workers and the intrinsic rewards associated with the job. The concept denotes those *observable characteristics* of the job as they are experienced by workers.

A number of measurement implications follow from this definition. The first is that the quality of the working environment should be measured by looking at *outcomes*, rather than *procedures*. The second is that the focus should be on outcomes experienced by *individual workers* rather than on what is observed at the aggregate level. The third is that measures should capture, as much as possible, *objective* aspects of the job rather than *subjective* evaluations of it. While the rationale for each of these criteria is described in greater detail in Chapter 4, a first take is provided below:

- *Outcomes versus procedures.* While labour-market policies, labour codes and firm-level practices influence, to a significant extent, working conditions at both the country and the firm levels, work is carried out by individual workers in conditions that may differ widely. For instance, the maximum working hours can be set at 35 hours per week by national legislation but actual work hours can be significantly higher than this threshold for some workers. Similarly, a firm can provide training courses for employees, yet some workers may be unaware of their existence or have too much work to attend them. The quality of the working environment, therefore, is best captured by focusing on outcomes, with data on procedures and regulations used only as a second-best solution in the absence of outcome measures.
- *Individual-level versus aggregate measures.* As the quality of the working environment differs across workers (even when employed by the same firm), any measure of it should be individual-based. A high-quality working environment will reflect the combination of different characteristics, which can be assessed only if information on all these aspects is available for the same person. Differences in the quality of the working environment are typically larger across workers within a country than they are across countries. Adequate policies can be developed only when workers with poor-quality jobs are identified. In other words, while individual-level information on the quality of the working environment can be aggregated at the level of socio-demographic groups, firms, sectors or countries, measurement should be carried out at the level of individual workers, with aggregate data (e.g. economy-wide data on the number of work-related accidents) used only as “space holders” in the absence of individual-level measures.
- *Objective versus subjective aspects.* These Guidelines refer to “objective aspects” as those that are, in principle, observable by a third party. While the quality of the working environment

refers to a combination of objective job features, how workers evaluate their own jobs is obviously a crucial element of workers' experiences on the job, and many aspects of the working environment can be based only on self-reports by individual workers. But the consequences of a good or bad quality of the working environment are logically distinct from the quality of the working environment *per se*, as workers' evaluations and experiences of their job are shaped by factors other than the quality of the working environment itself (e.g. personal characteristics, or family circumstances). For this reason, these *Guidelines* recommend that, beyond measuring various aspects of the working environment, surveys also include – when space allows – questions on how these impact on workers' well-being and productivity.

1.2. Why is the quality of the working environment important?

The quality of the working environment is important for both intrinsic and instrumental reasons.

Intrinsic aspect

The report by the Commission on the Measurement of Economic Performance and Social Progress, led by Joe Stiglitz, Amartya Sen and Jean-Paul Fitoussi,¹ argued that: “Paid work matters for quality of life partly because it provides identity to people and opportunities to socialise with others. However, not all jobs are equally valuable in this respect. This underscores the importance of collecting more systematic information on the quality of paid work” (Stiglitz, Sen and Fitoussi, 2009). Indeed, some jobs have undesirable attributes such as exposure to high physical risks and long working hours that are bad in themselves. When workers holding these *bad* jobs are rewarded with higher wages, then job quality is not necessarily an issue. The theory of “compensating wage differentials” argues that wage differences typically offset differences in various non-monetary attributes of jobs, hence effectively equalising the quality of jobs.² In this perspective, a competitive labour market should lead to a situation where workers with similar skills and productivity are still paid different wages, as employers compensate those workers who are available to work in less desirable conditions through higher pay.

There is, however, much empirical evidence that jobs with a poor working environment do not always pay higher wages. For instance, Duncan and Holmlund (1983) showed that, while there is evidence of wage compensation for dangerous and stressful working conditions in the United States, this does not apply to hard physical labour and inflexible hours. Similarly, Fernández and Nordman (2009) found that jobs with poor working conditions in the United Kingdom paid *lower* earnings, contrary to the claims of the theory of compensating differentials. Ose (2005) showed that Norwegian workers are not fully compensated for higher levels of noise in their working area, or for heavy or frequent lifting of weights or for poor work postures.³ The existence of only partial or no compensating wage differentials implies that, for any assessment of the overall quality of jobs, the quality of the working environment should be measured alongside earnings and other labour-market features.

The link to workers' well-being

A long-standing tradition of empirical research has linked various aspects of the working environment to workers' physical and mental well-being. For instance, epidemiological research has established a robust link between working conditions and

physical health outcomes across different countries and groups of workers (for a review, see OECD, 2014, Annex 3.A.1). These studies typically measure work characteristics through a baseline questionnaire administered to individual workers, who are then followed over a number of years; some of these studies also link initial working conditions with workers' health status in later periods, through official health registers, clinic examinations or self-reports by employees.⁴ These studies provide good evidence on the causal role of a poor working environment, with a strong adverse effect of job strain on a number of health outcomes, such as cardiovascular and coronary heart diseases, high blood pressure and musculoskeletal diseases (e.g. Kivimäki et al., 2012; Slopen et al., 2012).

Links have also been established between a poor work environment and workers' mental health. Most of this evidence comes from cross-sectional analyses based on self-reported measures of both working conditions and health status (Bakker and Demerouti, 2007). Because of the cross-sectional nature of the data used in most of these studies, establishing the direction of causation is obviously complex: workers facing poor working conditions are more likely to report mental health disorders because of high job strain, but individuals with mental health problems are also more likely to report high job strain because of their poor health conditions. To deal with possible reporting bias, some studies have used scoring of workplace conditions at the level of work units, finding evidence of an adverse health effect of job strain, and lending support to the view that the causal link runs from job strain to health outcomes, rather than the other way around (Kolstad et al., 2010). Longitudinal studies tend to confirm this conclusion (Stansfeld and Candy, 2006; Netterstrøm et al., 2008); in particular, when controlling for the duration and intensity of exposure to job strain, these studies typically find evidence of strong links between job strain and the development of mental health disorders (e.g. Stansfeld et al., 2012).

The link to firms' productivity

A second instrumental reason for focusing on the quality of the working environment is the possibility that it could enhance firms' productivity. Research on the link between job quality and productivity is still at an early stage, with most studies relying on cross-sectional analysis and on measures of workers' attitudes that might be expected to be associated with higher firm productivity (e.g. work engagement, innovative behaviours), rather than on matched workers-firms micro-data (see Chapter 3). Despite these limitations, a recent OECD-wide meta-analysis (Arends, Prinz and Femke, 2018) reported *strong evidence* of a negative relationship between job stress and job strain, on one side, and at-work productivity, on the other, and of a positive relationship between job rewards and productivity, with *moderate evidence* of a significant relationship for a range of other work aspects. Longitudinal or quasi-experimental studies also indicate that the quality of the working environment is connected to productivity through both direct and indirect links. For example, more skilled workers typically have higher work performances, with positive effects for the performance of the firm that they work for; for this reason, jobs that provide opportunities for learning and training tend to have higher productivity. Dearden, Read and Van Reenen (2006) used longitudinal data to show that training which enhances skills is associated with higher productivity (measured as real value added per worker). Another job feature with a direct link to productivity is work accidents, which cause a loss of working days and grief among employees.

The indirect effect of a good-quality working environment on a firm's productivity also stems from the "happy worker-productive worker" thesis (Wright and Cropanzano, 2004),

i.e. the notion that employees who are more satisfied with their job will also work harder. There are a number of mechanisms through which good-quality jobs might increase workers' productivity. For example, work autonomy provides greater scope for employees to shape their jobs and enhances the person-job fit, and thus both workers' well-being and their productivity (Daniels, 2011). Information sharing is likely to increase workers' knowledge of their firm's objectives and plans, reduce uncertainty in the work environment and increase productivity (Wood et al., 2012). Finally, jobs that are seen as enhancing careers contribute to higher job satisfaction (Warr, 2007) and higher performance on the job. In short, there is enough evidence that the greater well-being, job satisfaction and motivation associated with better-quality working environments have a positive impact on a firm's staff turnover, "presenteeism"⁵, sickness leave and other measures of job performance, with positive spillovers for its productivity.

1.3. How could better data on the quality of the working environment help policies?

The importance for policy of good data on the quality of the working environment can be linked to three different considerations:

- first, the importance of measuring social conditions for an entire country or community
- second, the importance of improving workers' health and well-being
- third, the goal of increasing productivity and competitiveness in the context of technologically advanced economies.

With respect to the first element, the need to inform policy making with indicators of social conditions that go beyond traditional measures of economic growth is now widely recognised: measures of economic growth fails to capture important changes in the social environment that affect people's well-being (Stiglitz, Sen and Fitoussi, 2009). The need for measures of the quality of the working environment is a clear example of this. The experience of work is of fundamental importance for the psychological and physical well-being of workers. But, since economic growth can be achieved through different systems of work organisation – with better or worse implications for the working experiences – it cannot capture changes in working conditions. While this has long been recognised with respect to physical working conditions, leading to programmes to regulate health and safety at work, more recent research has documented the links between the work environment and workers' psychological well-being. Better data on the work environment can provide a more comprehensive picture of social development and are vital for understanding other important social outcomes such as people's health status, their competencies, their political voice and subjective well-being.

With respect to the second element, the ability of policy makers to track changes in the quality of the working environment and to introduce relevant reforms has obvious implications for the challenges that they confront with respect to health provision. There is increasing concern that more intensive work systems, combined with greater competitive pressures at the international level, may give rise to higher levels of mental health problems. Mental health problems are a substantial source of absences from work, with high economic costs due to lost production and to increased demands on health care and welfare provision (Chandola, 2010; HSE, 2013; OECD/EU, 2016). In OECD countries, people diagnosed with a mental disorder account for 30-40% of disability benefit caseloads, at a cost of around 0.7% of GDP (OECD, 2015). There are similar implications for sickness benefit and social assistance

programmes. Policy makers hence need better data to establish which developments in the work environment lead to an increase in psychological ill health, and how sources of stress can be mitigated by improved work design on the part of employers. Failure to do so could lead to escalating costs that fall on the budgets of welfare and public health systems as externalities from a poor working environment.

Finally, as mentioned already, there is also evidence that the quality of the working environment is important for work performance, an effect that may become stronger in a technologically advanced economy. The strongest effect of technological change on occupational structure has been the growing share of highly skilled jobs (Handel, 2012; Fernández-Macías et al., 2012). These jobs typically require stronger motivation and greater discretionary effort by workers. Skilled work involves greater complexity and uncertainty, making tasks more difficult to specify in advance and to monitor effectively. In these conditions, the quality of work depends, to a greater extent than before, on workers' motivation, willingness and capacity to use their own initiative. Policies to increase workers' productivity and firms' competitiveness need to be informed by good evidence on those characteristics of the work environment that enhance workers' motivation and provide scope for their initiative and discretionary effort.

Providing reliable evidence to policy makers on how the quality of the working environment is changing requires the regular collection of high-quality and representative data. The past two decades have witnessed a substantial increase in the evidence base available, partly as a result of national studies and partly through cross-country studies, mainly on countries in the European Union.⁶ However, we are still far from the ideal situation of being able to draw on cross-country comparable datasets with large samples. While it is currently possible to compare *average* differences in the quality of the working environment across countries and, less reliably, between broad groups of workers – e.g. by gender, education level and economic sector – it is difficult to draw reliable conclusions about country differences for smaller sub-groups of the workforce or by occupation. These differences are nonetheless highly important for policy discussion. For instance, while there has been much debate about the benefits and disadvantages of temporary contracts, it is difficult, with currently available datasets, to compare cross-nationally the conditions experienced by different types of temporary workers and to know how these vary by gender, age and skill level. This limits both the ability of researchers to explore whether the social consequences of temporary work are affected by the institutional framework of different countries and the capacity of policy makers to draw conclusions about the types of measures that might be most effective.

Finally, the good-quality cross-country data that currently exist are mainly limited to developed countries. An important priority for future work will be to extend coverage to a much wider range of countries, while responding to the challenge of selecting the indicators that are relevant to structurally different economies and that take account of the diversity of working conditions that this implies.

1.4. Objectives of these Guidelines

All too often, in policy, *what is not measured is not acted on*. In other words, public policy seldom targets areas where no credible statistics exist. While a multitude of academic and national surveys on the quality of the working environment exist, the area requires further steps to *streamline* on-going initiatives. Moreover, there is a substantial gap in terms of the

geographical coverage of existing data. Few non-European OECD countries produce statistics on the quality of the working environment and, even when they do so, they usually focus on physical aspects of the work, ignoring other important aspects such as task discretion and autonomy or learning opportunities at work. These *OECD Guidelines* propose, based on the best evidence and research that is currently available, a set of questions to capture the several facets of the concept that should be measured together and that could help both data users and data producers (e.g. national statistical offices) with limited experience in collecting statistics in this field.

The set of survey questions on the quality of the working environment proposed by these *Guidelines* aim to:

- improve the *international comparability* of measures in this field by providing a common reference point for national statistical agencies
- increase data availability on less conventional aspects of the quality of the working environment such as psychological risks, emotional demands, intrinsic rewards, etc.
- increase the *periodicity of the data collected*, facilitating better monitoring and policy intervention
- raise the number of countries for which high-quality measures of the quality of the working environment are produced.

The *OECD Guidelines* presented in this report complement the UNECE's *Handbook on Measuring Quality of Employment* (2015), a set of internationally agreed principles for compiling statistics on the quality of employment. As in the OECD's Job Quality Framework (Cazes, Hijzen and Saint Martin, 2015), the UNECE Statistical Framework defines employment at the individual level and as a multidimensional concept, based on 7 dimensions and 12 sub-dimensions. These *OECD Guidelines* look in greater depth at some of the UNECE dimensions and sub-dimensions that relate to the quality of the working environment – namely, safety and fair treatment at work (sub-dimensions 1.a and 1.c), working time and work-life balance (dimension 3), skills development and training (dimension 6), and employment-related relationships and work motivation (dimension 7). In other words, the *OECD Guidelines* build upon the UNECE Statistical Framework, aiming to expand the information base available in this field.

Notes

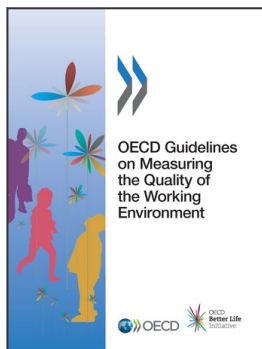
1. Report by the Commission on the Measurement of Economic Performance and Social Progress (Stiglitz, Sen and Fitoussi, 2009).
2. Adam Smith, in *The Wealth of Nations*, first argued that “The wages of labour vary with the ease or hardship, the cleanliness or dirtiness, the honourableness or dishonourableness of the employment” (Smith, 1776).
3. For a detailed review of the theory of compensating wage differentials, see Muñoz de Bustillo et al. (2011).
4. Well-designed epidemiological studies select participants who are free of the health outcome in question at the baseline stage and control for common risk factors such as lifestyle factors (e.g. tobacco smoking, alcohol intake and physical activity) and coronary risk factors (e.g. cholesterol and diabetes status).
5. The term “presenteeism” is generally used to denote situations where workers feel compelled to be at work despite being sick, with consequences in terms of lower productivity, further declines in their health, exhaustion and possible epidemics at the workplace.
6. As argued at greater length in Chapter 2, the different sources of available data have distinctive advantages and disadvantages. National studies typically have larger samples and provide evidence

across longer periods of time, allowing a detailed examination both of differences in the working environment for different groups of workers and of how these have changed across time; they are, however, difficult to compare across countries due to differences in survey design, question wording, response scales and indicators used to measure specific job characteristics. Cross-national studies provide a stronger basis for comparison between countries, but they are usually restricted to small samples that make it difficult to disaggregate the data to examine the conditions affecting detailed categories of workers.

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