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Beating burnout: identifying bad jobs and improving job quality

Laura Nurski and Mia Hoffmann

Executive summary

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WHILE EUROPEAN-WIDE information on burnout is scarce, national statistics show that stress-related absenteeism is on the rise, generating significant costs for firms and welfare states, while reducing worker wellbeing. Although manifested at the individual level, burnout is an occupational phenomenon, predicted most clearly by imbalances in job content (high workloads and low autonomy) and the social environment at work – two under-explored aspects of job quality.

WHILE THE ECONOMY and society as a whole would benefit from a healthier workforce, market failures drive job quality below an optimal level, necessitating attention from policymakers. Measuring and intervening in job content is not straightforward, however, and has not been a main policy domain in Europe. Policy frameworks and interventions therefore tend to focus on other areas of job quality, such as the physical and contractual working conditions.

TO MANAGE THE burnout epidemic and mitigate the impact of the changing nature of work, job-quality policy needs to focus on the job-content aspects as well. Wellbeing outcomes of low job quality, such as burnout, need to be monitored at European level and can serve to evaluate the effectiveness of policy interventions in job quality.



1 Introduction

The proportion of workers in Europe affected by job burnout has been on the rise for years. Although manifested at individual level, burnout is an occupational phenomenon that originates in the workplace and points to low-quality jobs. Burnout was already prevalent in some sectors including healthcare and education before the COVID-19 pandemic (Eurofound, 2018). The numbers affected in those sectors can be expected to rise after two years of additional strain from the pandemic. But heavy workloads are just one element of the equation. Low job control is also linked to burnout across occupations within the healthcare and education sectors (Taris *et al.*, 2005)¹.

This link between characteristics of jobs and the wellbeing of workers is the basis for the concept of job quality. Job quality is defined by Eurofound (2021) as "measured at the level of the job and includes objective, observable job features that relate to meeting people's needs from work"; by the OECD "in terms of its contribution to workers' well-being" (Cazes et al, 2015); and by UNECE (2015) as "the entirety of aspects of employment that may affect the well-being of employed persons" (see section 5 for more details).

It therefore seems straightforward that, to control the burnout epidemic, improvements must be made to the quality of work². The European Union has had job quality on its agenda for more than twenty years³, but unfortunately, strong policy initiatives are still lacking.

2 Why does job quality matter?

Job quality matters first and foremost because of its effect on workers. Job characteristics are beyond dispute the most important determinant of workers' occupational health and behavioural outcomes (Bakker and Demerouti, 2017). Job quality has been found to affect workers' attitudes (engagement, commitment, satisfaction) and behaviour (performance, absenteeism, turnover). It also has an impact on workers' wellbeing and mental health (stress, burnout) (see Humphrey *et al*, 2007 for a meta-analytic review). This has led the World Health Organisation (WHO) to classify burnout not as a medical condition but as an occupational phenomenon⁴. Job quality even impacts physical health, especially in relation to heart disease, strokes and cardiovascular mortality: links have been found between these and long working hours (Pega *et al*, 2021) and low job control (Rugulies *et al*, 2020; Niedhammer *et al*, 2020).

- 1 See section 3.4 for our full definition of what constitutes a 'good' job.
- 2 While we mainly refer to 'jobs', most of our analysis can be applied to the broader concept of 'paid work' that may take place outside of standard employment relationships.
- 3 The European Council called for 'better jobs' at a summit in Lisbon in 2000; in 2017 member states committed to 'fair working conditions' under the European Pillar of Social Rights; and at the Porto Social Summit in 2021, the Council declared job quality a policy priority.
- 4 See https://www.who.int/news/item/28-05-2019-burnout-an-occupational-phenomenon-international-classification-of-diseases.

Box 1: Burnout in Europe

According to the WHO, burnout is a syndrome "resulting from chronic workplace stress that has not been successfully managed"⁵. The most common definition is "a state of exhaustion in which one is cynical about the value of one's occupation and doubtful of one's capacity to perform" (Maslach *et al*, 1996, p.20). This description includes three separate aspects: exhaustion, disengagement and reduced professional effectiveness.

Unfortunately, there are no official European statistics available to keep track of burnout rates over time, or in different countries and occupations (see Eurofound, 2018, for a good overview of existing sources). National statistics suggest that stress-related absenteeism is on the rise. In Belgium, long-term invalidity due to burn-out and depression rose by 40 percent in the four years leading up to the pandemic, costing the state over \in 1.5 billion in invalidity benefits in 2019⁶, not including the absenteeism costs for firms. In the Netherlands, a representative study found that the percentage of employees experiencing burnout increased from 11 percent in 2007 to 15 percent in 2016 (Hooftman *et al*, 2017). Similarly, the proportion of Portuguese workers affected by burnout increased from 8 percent to 15 percent between 2008 and 2013 (Cunha *et al*, 2014). In Germany, incapacity to work because of mental disorders more than doubled between 2008 and 2018, with depression, burnout and stress-related disorders accounting for approximately 70 percent of cases (Knieps, 2019).

Analysis by Schaufeli (2018) suggested that on average 11 percent of the EU workforce feels burnt-out, ranging from 4.3 percent in Finland to 20.6 percent in Slovenia. Higher levels of burnout are reported in the east and south-east of Europe, with lowest levels in north-west Europe (with the notable exception of France; Figure 1).

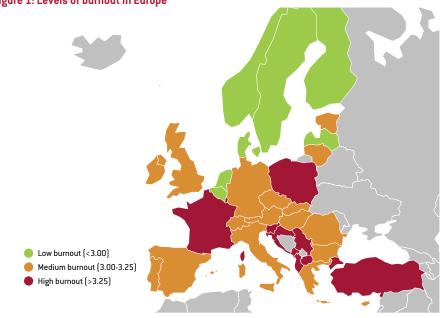


Figure 1: Levels of burnout in Europe

Source: Schaufeli (2018) based on Eurofound European Working Conditions Survey (2015). Note: burnout (via the proxy feeling of exhaustion) is measured on a scale from 1-5 where 1=never and 5=alwaus.

⁵ See https://www.who.int/news/item/28-05-2019-burnout-an-occupational-phenomenon-international-classification-of-diseases.

⁶ See https://www.riziv.fgov.be/fr/statistiques/indemnites/Pages/incapacite-travail-longue-duree-combien-burnouts-depressions.aspx.

Given these significant effects of job quality on the health, attitudes and behaviours of workers, it is not surprising that the performance of teams, departments and firms is also impacted by job quality. The engagement, commitment and health of workers affects productivity, turnover and the absenteeism costs faced by firms. Employee satisfaction and engagement also impact on firm-level outcomes including customer satisfaction, productivity, profits and employee turnover (Harter *et al*, 2002, 2010). Nationally representative, linked employer-employee panel data for the United Kingdom (Bryson *et al*, 2017) has also established the link between job satisfaction and workplace performance. There is evidence of a two-step process: from work characteristics to collective engagement and from collective engagement to firm performance (Barrick *et al*, 2015). Finally, while currently less validated empirically, effects can be expected at the level of market outcomes in terms of labour-force participation, aggregate productivity and healthcare system costs (Cazes *et al*, 2015).

3 What do we know about job quality?

3.1 Job quality has an objective and a subjective aspect

The concept of job quality is based on the link between job characteristics and worker wellbeing. It provides a framework to assess how different aspects of a job, such as its content, organisation and environment, come together to form a positive or negative work experience. While worker wellbeing is unambiguously influenced by objective job characteristics, the causal effect is also moderated by individual circumstances (career paths and non-work life) and personal preferences, aspirations, values and skills. In practice, the wellbeing impact of a given job depends on the combination of its characteristics and on how the individual jobholder experiences working in it. This means there are objective and subjective parts to job quality, and a dual approach to measuring job quality is warranted, as is currently accepted in the broader wellbeing literature (Durand, 2015; Nikolova and Graham, 2020). Tracking subjective worker assessments can also show the importance of objective job characteristics and evaluate the wellbeing effect of changes to certain objective job features.

3.2 Job quality is multidimensional

Job quality is a multidimensional phenomenon, consisting of many different factors. We use the following structure⁷ for the purpose of this paper, as it allows us to compare scientific models and policy frameworks of job quality in a sufficient – but not excessive – level of detail.

Job domains

We include here factors that are strictly characteristics of the job (not of the person in the job or of the wider environment surrounding the job):

- Job content: tasks and responsibilities as well as the decision-making power and skill discretion associated with those tasks, both in terms of their volume (eg work intensity) and nature (eg complexity), and originating both from formal job descriptions and informal roles.
- Interpersonal relationships: interpersonal relationships between people in the workplace, including co-workers and supervisors, in terms of strain (workplace bullying) and in terms of support and coaching.
- Contractual employment conditions: the conditions of employment stemming from contractual agreements, such as wages, working time arrangements (including part-time work or shift work), paid leave and contract type (temporary work, precarious work or the lack of a formal contract).
- · Physical working conditions: the physical environment of work, including ambient con-

⁷ Based on the Dutch/Belgian 'Four A' model (Vandenbrande et al, 2013).

ditions (sound, light, vibrations), physical strains (such as physical workloads, ergonomic risks and repetitive movements) and the presence of dangerous situations (including contact with chemicals and other dangerous substances).

Non-job domains

We include here broader aspects of employment and social welfare that also impact work-related wellbeing but are not a strict characteristic of the job.

- Individual mediators: characteristics of the person (such as care responsibilities or age), or characteristics of the fit between a person and their job (such as work-life balance, tenure or skills match).
- Higher-level antecedents: characteristics of the sector or country, such as the presence
 of a welfare system, unemployment insurance or the degree of unionisation, and characteristics of the employing organisation, including its organisational structure, culture and
 worker representation in social dialogue⁸.

3.3 Subjective wellbeing is heavily impacted by job content

The most flourishing research field in terms of studying the subjective wellbeing outcomes of job quality has been industrial and organisational psychology. Table 1 lists five models of job quality that have been influential in shaping scientific thinking in the past 50 years, organised according to the job quality dimensions outlined above.

By far the most important driver of worker wellbeing in these academic frameworks is job content, which refers to the inherent nature of the tasks that workers execute. Herzberg's seminal two-factor theory (Herzberg, 1959, 1966) emphasised that job content provides workers with intrinsic motivators that contribute to job satisfaction because they appeal to higher-order human needs for self-realisation and appreciation. Herzberg's framework however struggles to measure job content in concrete metrics. His indicator 'the work itself' fails to provide a tangible assessment of objective job characteristics, and the concept is further confounded by adding in subjective evaluations such as 'challenge' and 'meaningfulness'.

Building on Herzberg's ideas, Hackman and Oldham's job characteristics model (1975/76) separates objective job characteristics such as skill variety and autonomy, from the worker's subjective evaluation (dubbed "critical psychological states") such as experienced meaning-fulness and responsibility. This motivational job design approach advocated for enriching and enlarging the task content of jobs, in an explicit attempt to move jobs away from the simplified and dumbed-down jobs that were prevalent at that time. Another influential contribution to the job design approach was the job demands-control model of Karasek (1979), who introduced the idea that challenging work can only be motivating if it goes hand-in-hand with sufficient discretion to take on those challenges. While previous models considered each job characteristic as a separate motivator, Karasek's model stressed the interaction effect of different sets of characteristics. In this field of research, tough job demands on their own are found to be stressful and unhealthy, but a high level of job control can protect workers from these negative effects. The idea of balancing job demands and job resources to ensure healthy outcomes was also the basis of the job demands-resources model (Demerouti et al, 2001).

The second set of wellbeing drivers are found in interpersonal relationships at work. For example, Karasek added a third dimension of "social support" to the job demand-control model, to acknowledge that social support could be an additional help to workers in dealing with tough job demands. Similarly, Ryan and Deci's self-determination theory (2012) stated that relatedness (a sense of connection and belonging) is a basic human need that, when fulfilled, drives autonomous motivation, commitment and job satisfaction. In the same vein,

⁸ The institutional approach studies how labour market institutions and economic regimes shape job quality (Green, 2021). See also the useful summary in Muñoz de Bostillo *et al* (2009, 2011).

the job demands-resources model (Demerouti *et al*, 2001) argued that feedback and supervisor support are important factors that protect workers from the stressful effects of tough job demands.

In the third aspect of job quality – the contractual employment conditions – the job demands-resources model (Demerouti *et al*, 2001) includes variables such as working time, shift work, rewards and job security as explanatory outcomes for worker wellbeing. However, following Herzberg, such variables are usually regarded as hygiene factors, that need to be satisfied up to a minimum level. These hygiene factors are associated with lower-level needs that are important for avoidance of dissatisfaction, disengagement and stress, but don't contribute much to motivation and performance.

This 'hygiene' nature of job quality is also relevant to the fourth job-quality dimension: physical working conditions. Given that physical safety is a very basic human need, unsafe working conditions pose a very evident job-quality risk. A safe working environment in itself however does not necessarily make for a motivating job. Almost all of the potential motivators are found in the job content and interpersonal relations spheres.

In conclusion, psychological research on job quality shows that job content and interpersonal relationships are strong drivers of wellbeing outcomes, both positive and negative⁹. Whenever contractual and physical working conditions are studied, they have been found to have less impact on wellbeing, or only to the extent to which a minimum level needs to be satisfied. An extensive meta-analysis of 259 studies and over 200,000 participants (Humphrey *et al*, 2007) confirmed that job content (so called 'motivational') variables explained 34 percent of variation in job satisfaction, while social relationships incrementally explained 17 percent and the remaining two sets of dimensions (grouped under 'work context') only explained an additional 4 percent.

Within job content specifically, it is generally accepted that stressful and motivating elements need to be balanced with each other and should not be considered separately. Operationalising job content appears difficult. As jobs vary so widely, most measures focus on workers' subjective evaluations of their job content, either motivational (such as meaningfulness, significance, challenge and complexity) or straining (time pressure). Several studies have argued for more objective measurements of work characteristics (Bakker and Demerouti, 2017).

Sonnentag (2017) argued for a task-level perspective as worker outcomes vary significantly between different work tasks even within a workday. Especially in the context of task-replacing technologies such as artificial intelligence, task-level measures of job content are needed to assess the impact of technological advancement on job quality and wellbeing. Sector-level approaches might also be a fruitful tactic to improve job quality, as most job-content imbalances in specific occupations are known at the sector level. A Eurofound report (2021), which used Eurofound's job-quality framework, highlighted that job-quality differences can mostly be explained by occupation and sector: "job quality indices measure characteristics of the job that are often strongly linked to occupations, especially with regard to physical risks, skills use and autonomy."

⁹ Positive outcomes include motivation, engagement, commitment, performance and job satisfaction. Negative outcomes include stress, exhaustion, depression, burnout, absenteeism and turnover.

Table 1: Psychological models for job quality and worker experiences

		Worker experiences			
	Job content	Interpersonal relationships	Contractual employment con- ditions	Physical working conditions	
Two-factor theory (Herzberg, 1959)	Meaningful work, challenging work, achievement, growth, the work it- self, responsibility	Recognition Social relations, supervision	Wage, status, security, benefits, company policies	Working conditions	Job satisfaction
Job characteristics model (Hackman and Oldham, 1975/76)	Skill variety, task identity, task signif- icance, autonomy, feedback				Psychological states (experienced meaning- fulness, responsibility, knowledge of results) Outcomes (motivation, performance, job satis- faction, absenteeism, turnover)
Job demands-control(-support) (Karasek, 1979)	Decision authority, intellectual discretion Time pressure, physical and psychological demands	Instrumental and emotional support from coworkers and supervisor			Strain/exhaustion Depression Job satisfaction
Job demands-resources (Demerouti <i>et al</i> , 2001)	Job control, Workload, time pressure, recipient contact	Feedback, super- visor support	Shift work Rewards, job security	Physical environment	Disengagement Exhaustion Burnout
Self-determination theory (Deci and Ryan, 2012; Gagné and Deci 2005)	Autonomy, competence	Relatedness (sense of connection and belonging)			Motivation Commitment Job satisfaction

Source: Bruegel. Note: Motivators and job resources in green, hygiene factors and job demands in red, according to the cited authors.

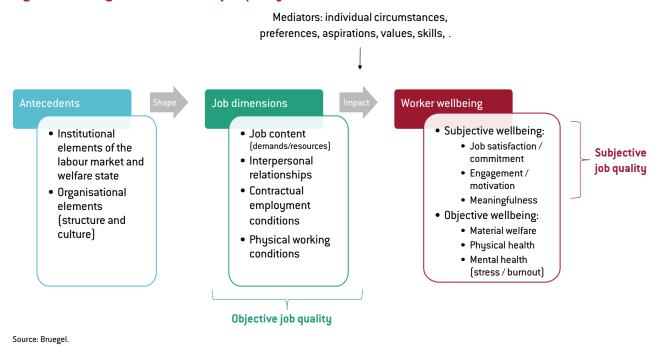
3.4 Definition of a 'good job'

Based on the discussion above, we can conclude that a good job entails:

- Meeting people's material, physical, emotional and cognitive needs from work through:
 - Job content that is balanced in the demands it places on workers and the resources it
 offers them to cope with those demands, in terms of physical, emotional and cognitive
 aspects;
 - Supportive and constructive social relationships with managers and co-workers;
 - Fair contractual employment conditions in terms of minimum wages, working time and job security;
 - Safe and healthy physical working conditions;
- Contributing to positive worker wellbeing:
 - Subjectively, in terms of engagement, commitment and meaningfulness;
 - And objectively, in terms of material welfare and physical and mental health.

Figure 2 summarises and shows that the analysis of job quality must separate three conceptual levels: *antecedents* measured at a level higher than the job (ie the firm, labour market or welfare state), *job dimensions* measured at the level of the job, and *worker wellbeing* measured at the level of the individual holding the job. The fact that job dimensions are defined at the level of the job does not negate the fact that they can be reported by the worker holding the job, as they are usually the best available data source.

Figure 2: An integrative definition of job quality



4 Can the market provide sufficient levels of job quality?

4.1 Market failures leading to suboptimal job quality

While workers and firms both stand to benefit from raising job quality, there are also costs. Some policies that raise job quality are inherently costly (like increasing wages). Other aspects could be assumed to be improvable at reasonable costs (such as stricter company policies on workplace bullying and safety), and other efforts could even turn out to be cost saving (like more autonomy for the worker). But given the outcomes listed in the previous section, positive returns to investment in job quality are highly likely. So why could job quality be too low?

One issue is who decides on the characteristics of jobs. In most European countries, the law sets a minimum standard for some aspects of work (including minimum wages, working time or safety). Beyond these minimum standards, some job-quality aspects (like further contractual terms) are negotiated between firms and workers, and the remaining aspects (like the task content of jobs and internal coordination mechanisms) are specified by firms. This fractured construction of jobs could be suboptimal because parties fail to consider the interactions between different aspects of job quality or their joint optimisation. Limited competition in the labour market further prevents poor outcomes in some aspects being compensated for by adaptation in other aspects.

When firms and workers negotiate (mostly on wages and working time arrangements), an imbalance in bargaining power and unaligned interests might lead to suboptimal job quality from a social welfare perspective (Clark, 2015). Firms might also not consider – or lack infor-

mation on – the long-term health and productivity effects of job quality on their workforces. Firms do not take into account the effect of job quality on the extensive and intensive margin of labour supply beyond their current workforce (through burnout, part-time work and labour-market participation decisions). This issue dates back at least to demands in the nine-teenth century to reduce the length of the working week: very long hours destroyed the health of workers, but this negative externality had little impact on employers, who had access to a large enough labour supply to replenish their workforces. This means the labour market suffers from a tragedy of the commons: all firms would be better off if they raised job quality and benefitted from a long-term healthy, productive labour force, but individual firms undermine job quality for their workers to reduce costs in the short-term. In particular, listed companies that must meet quarterly targets tend to focus too narrowly on short-term performance at the expense of long-term profitability (Kaplan, 1984).

In those job domains where the firm is the sole decision maker ¹⁰, the division and coordination of labour (ie organisation design) impacts job quality in various ways, such as through task content, autonomy, work intensity, supervisory support, career opportunities and social relationships. The complexity of optimal organisation design might prove to be too great to handle (Ethiraj and Levinthal, 2004). Even with perfect information and aligned interests between workers and firms, this bounded rationality of the organisation's designers could lead to sub-optimal job quality in the aspects of autonomy, work intensity and social relationships at work.

Why are workers not moving out of bad jobs into good jobs and driving bad-quality firms out of the market? In addition to reasons such as adaptation and learned helplessness (Martinko and Gardner, 1982) and segmented labour markets (Loveridge and Mok, 2012), economic reasons include barriers to geographical mobility (such as housing markets and commuting options), barriers to occupational mobility (such as costly job search, transferability and observability of skills, and imperfect information about jobs), and barriers to retraining (such as credit constraints and incomplete contracts). Legally, employment contracts are inherently long-term contracts that specify wages and work schedules in detail but are intentionally vague on job content (and cannot describe interpersonal relationships at all). It is therefore impossible to negotiate on key job quality characteristics up front, and they can only be really discovered after a contract has started.

Indeed, mobility between jobs is very low in practice, as data on job duration reveals. Most workers in all OECD countries (except Denmark) have been in their current job for at least five years¹¹. Average tenure ranges between seven and 10 years, meaning that on average people hold between four and six different jobs in a 40-year career. Overall, worker mobility tends to be greater in Nordic and Baltic states than in southern European countries including Greece, Italy and Portugal. Given the low volume of labour-market transitions, it is clear that relying on the market is not sufficient to correct for low levels of job quality.

4.2 Individual preferences

Low levels of movement out of 'bad jobs' could also be down to differences in the willingness of individuals to trade-off certain aspects of job quality. Some people might prefer to accept a low-autonomy job in exchange for high job security, for example. If we take those preferences at face value, there would be no need for policy to improve job quality on subjective wellbeing grounds – as that wouldn't increase job satisfaction – but only on objective grounds – such as resolving health issues that could still lead to societal costs. Indeed, workers in 'objectively' bad jobs do not always report low job satisfaction (Brown *et al*, 2012), and different workers report different levels of satisfaction for the same job (Cooke *et al*, 2013; Findlay *et al*, 2013).

In economic theory, 'preferences' is a catchall term for a set of individual tastes, values, beliefs, capacities and motives, which together explain individual behaviour and choices

10 So technically this is not a market failure, but a governance failure.

11 According to OECD labour force statistics (dataset Employment by job tenure intervals).

(Bowles, 1998). Preferences are believed to be a mix of inherent (exogenous) and learned (endogenous) traits, the latter being shaped by upbringing, culture, social interactions and norms, and institutions (McCrate, 1988; Bowles, 1998; Bisin and Verdier, 2001). This implies that individual choices about labour-market participation, or evaluation of job characteristics, are influenced by internalised norms. For example, women might choose part-time or remote work, not because of an innate preference for domestic work, but rather because of the prevalent division of unpaid labour in the household.

This aspect is further complicated by aspirations. Aspirations are distinctly different from preferences: they explain differences between individuals in job satisfaction, but do not change the ranking of jobs by one individual. Like preferences, aspirations are endogenous, shaped by past experience and circumstances (Schokkaert *et al*, 2011), also known as adaptation. An individual from a vulnerable social group may be more satisfied in a given job than someone from a more privileged background, simply because their expectations from work and their options beyond the job differ significantly. Similarly, women might accept pay offers below those offered to men because the underrepresentation of women in high-level jobs has shaped their aspirations.

It is thus important to recognise this systemic shaping of aspirations and preferences that determines job outcomes for different societal groups. Ignorance legitimises the idea that some groups of people hold objectively worse jobs because of inherent preferences or lack of ambition. While understanding the role of aspiration is crucial for interpreting job satisfaction, measures of job quality should be independent of aspiration (Schokkaert *et al*, 2011). Job satisfaction can therefore not be the only measure of job quality. It should be balanced with objective job characteristics, other subjective wellbeing measures such as engagement and meaningfulness, and objective wellbeing outcomes (as shown in Figure 2).

5 Does current EU policy address jobquality concerns?

5.1 Do policy frameworks consider the relevant dimensions of job quality?

Growing awareness of the multidimensionality of job *quality* and its implications for workers' health and wellbeing has fostered institutional interest in the concept. To supplement existing plans for increase job *quantity*, international organisations and policy institutions have developed frameworks to define the concept of job quality and to measure and monitor it. Major frameworks include the International Labour Organisation's (ILO) Decent Work Agenda, the OECD's Job Quality Framework, UNECE's Quality of Employment Framework, Eurofound's job quality framework and the job quality index by the European Trade Union Institute (ETUI). Variations in scope and conceptualisation reflect the institutions' policy priorities, which place emphasis on different aspects of job quality. Table 2 lists the frameworks and groups their elements into the framework outlined in section 3.2.

One common factor in institutional definitions of job quality is that contractual employment conditions feature prominently. This encompasses a wide range of characteristics of the employment relationship. These aspects often reflect areas that are the focus of regulation, such as income (minimum wage), working time (limited work hours) or ethics at work, and are therefore of particular interest to policymakers. At the minimum, the quality of contractual employment conditions is captured by earnings (OECD), but most frameworks cover also, in addition to the aspects listed above, job security and stability, non-wage benefits, skills development and training, and organisational participation.

Besides contractual employment conditions, all policy models incorporate physical working conditions in their job quality definitions (though the OECD only captures them as part

of an aggregate measure of the quality of the work environment). Physical working conditions capture aspects related to safety and physical health at work. A safe environment is one of the most fundamental needs workers have, and bad physical working conditions have a direct and observable impact on workers' health outcomes. As such, physical working conditions are naturally a priority for policymakers.

The well-established importance of job content for worker wellbeing, however, is not quite mirrored in institutional job-quality frameworks. The ILO's Decent Work Agenda, for example, excludes this aspect entirely, likely due to the organisation's global outreach and the need to encompass diverse national conditions. Therefore, the focus of decent work is the basic needs from work, while firm- or job-level factors, such as job content, are disregarded. The OECD acknowledges the importance of job content for job quality by accounting for time pressure and autonomy in its composite measure of job strain, while ETUI's job content dimension builds on the same two aspects. Conversely, Eurofound makes job content a priority of its model, by dedicating two out of its seven framework elements to capture job content aspects relating to work intensity, autonomy and skills use. UNECE adds exposure to mental health risks to those previously mentioned.

Similarly, only three of the five policy frameworks consider the role of interpersonal relationships at work. The social environment includes positive aspects such as social support and mentorship at work, but also adverse behaviours such as bullying or harassment. Neither the ILO nor ETUI account for these as determinants of job quality. The OECD again includes the role of the social environment at work in its composite measure, while UNECE and Eurofound each dedicate an entire domain of their framework to it.

Beyond those four aspects, institutional frameworks of job quality often include contextual elements that may mitigate or exacerbate the effects of job quality on wellbeing outcomes (Table 2, columns 5 and 6). All policy frameworks except the Eurofound model include mediators and antecedents. Mediators, found at the individual level, are often aspects reflecting the job-worker match in terms of skills or work-life balance. Antecedents, at the firm-, industry- or country-level, reflect the wider economic and institutional context of the job and labour market, such as collective interest representation or social security coverage. While a good understanding of the state of the labour market is crucial for policymakers, the inclusion of antecedents and mediators that are not strictly tied to the job in question in a conceptual framework for job quality is problematic. A mix of individual-, job and country-level indicators lacks a consistent level of assessment of job quality and is therefore only partially able to reflect worker wellbeing on the job.

Table 2: Institutional frameworks on quality of work and employment

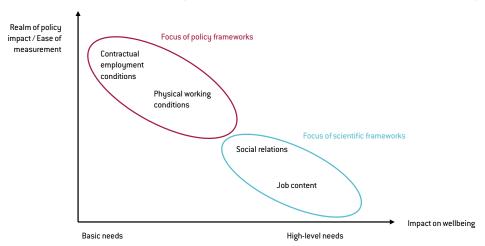
		Job do	Non-job domains			
	Job content	Interpersonal relationships	Physical working conditions	Contractual employment conditions	Country/sector/firm antecedents	Individual mediators
Eurofound - Job Quality	Work intensity, Skills and discretion	Social environment	Physical environment	Working time quality, Prospects, Earnings		
OECD - Job quality	Quality of the working environment/job strain time pressure, autonomy, relationships, physical risks			Earnings quality (average earnings, earnings inequality)	Labour market security against unemployment and low pay	
ETUI - Job Quality	Working conditions work intensity, work autonomy, physical work			Wages, Non-stand- ard employment & job security, Working time, Skills and ca- reer development	Collective interest representation	Work-life balance
UNECE - Quality of Employment	Work motivation	Work relationships	Safety	Income, Non-wage benefits, Working time, Security of em- ployment, Training	Social dialogue Child and forced labour Equal opportunity;	Employability, skills match, Holding multi- ple jobs, Work- life balance
ILO - Decent Work			Safe work environment	Adequate earnings and productive work, Decent working time, Stability and security of work	Employment and socio- economic context, Social security, Social dialogue, Unethical work, Equal opportunity and treatment in employment	Combining work, family, and personal life

Source: Bruegel, based on ILO (2013), Eurofound (2021), Cazes et al (2015), UNECE (2015) and Leschke et al (2008, 2012). Note: Organisational participation, or worker involvement in organisational changes, could theoretically impact several dimensions of job quality (including physical working conditions and interpersonal relationships), but in practice it usually impacts contractual employment conditions. Collective interest representation, social dialogue and unionisation, when measured at the level above the employer, were put in the industry/country column, although this will indirectly affect organisational-level worker involvement as well.

In summary, in contrast with scientific models of job quality and work design, policy frameworks tend to focus on the contractual and physical working conditions and often even wider contextual elements of the labour market and the welfare system. This is likely driven by several considerations (Figure 3). First, policy frameworks are often designed to cover a wide geographical area, including developing countries where basic needs such as safety and living wages (or 'hygiene factors') still require a lot of attention. Psychological research often studies jobs in the industrialised world and can therefore focus on higher-level needs such as belonging, esteem and self-actualisation. Second, even scientific models still lack good objective measures of job content that can be used consistently across occupations, industries and countries. This lack of good scientific standards leads policy institutions to emphasise those aspects that are more easily and objectively measurable¹². Third, given their origin, policy frameworks highlight features that lie within the realm of impact of public policy action. In market economies, job content and the internal organisation of work are the prerogative of the firm, while government and social dialogue has focused on regulating the employment relationship and physical safety of workers in the economy.

¹² Several papers and reports summarise outstanding issues in the conceptualisation and measurement of job quality for policy making, such as Green (2021).

Figure 3: Differing focus of policy frameworks and scientific frameworks of job quality



Source: Bruegel.

Finally, there is a major difference between scientific frameworks and policy frameworks on job quality in how they treat worker outcomes such as health and behaviour. Scientific frameworks explicitly measure worker outcomes in an attempt to identify causal links between job characteristics and worker outcomes. Policy frameworks emphasise the link to wellbeing outcomes when selecting measures for their job-quality frameworks, but do not include these worker outcomes themselves in their measuring frameworks. One way to improve policy models would therefore be to also measure worker outcomes (like burnout) as a check of whether policy interventions in job quality succeed in improving worker wellbeing.

5.2 Rising and falling attention paid to job quality in European policy

Improving job quality has been a stated goal of the EU for over 20 years. Employment in general became a European soft policy area with the creation of the European Employment Strategy in 1997. The overarching objective of job creation was supplemented by the ambition for better jobs in the Lisbon Strategy in 2000 (European Council, 2000). The launch of the European Pillar of Social Rights (EPSR) in 2017 placed job quality back on the agenda. In line with the EPSR's aspiration of "building a fairer and more inclusive European Union", member states committed to common minimum standards in labour markets and welfare states, including in the domain of "fair working conditions", which covers contractual security, wages, dismissal protection, social dialogue, work-life balance, health, safety and data protection (European Commission, 2018). The von der Leyen Commission's priorities for 2019-2024 called for "an economy that works for people", implying access to good quality jobs for EU citizens Most recently, EU leaders after a summit in Porto in 2021 issued a declaration stating "the priority will be to move from protecting to creating jobs and to improve job quality" (European Council, 2021).

However, little of this political commitment is reflected in past EU employment policy. While rhetoric about 'better jobs' has been around for two decades, the idea of measuring and improving job quality has been given varying levels of attention by policymakers. Recurring economic crises have repeatedly shifted attention away from the quality to the quantity of jobs. This continuous trade-off has prevented meaningful policy action on job quality, undermining efforts to formulate a coherent strategy, define targets and evaluate the impact of labour-market policies (Piasna *et al*, 2019). Stated intentions or goals relating to job quality have been vague and intangible. Metrics chosen to monitor job quality reflected the wider context of the labour market and failed to provide a meaningful assessment of job quality in

13 See https://ec.europa.eu/info/strategy/priorities-2019-2024_en.

the EU (Davoine *et al*, 2008; Green, 2021). The targets and benchmarks set in the EPSR action plans unfortunately follow the same pattern (European Commission, 2021).

As a result, there remain significant differences in job quality across EU regions (Eurofound, 2021). Although there is no such thing as a European employee, the EU is right to make job quality a European policy priority. Regional differences in job quality undermine labour mobility in the EU and therefore prevent full integration of the single market. Addressing differences would therefore improve the adjustment mechanism of the labour market.

Much more importantly, persistent inequalities in job quality across regions and occupations directly undermine the EPSR's ambition of a fairer and more inclusive European Union. Inequities in job quality are drivers of other inequalities in Europe, including in economic outcomes and material wellbeing, mental and physical health outcomes and social mobility. This has significant societal and political implications. The distributional consequences of job polarisation in Europe, namely wage stagnation and a shrinking middle class, go hand in hand with deteriorating job quality in the form of reduced real income, growing job insecurity and deteriorating career prospects. Fear of declining economic status and deteriorating material wellbeing drives general discontent among workers, which is manifested in political outcomes. The rise of extreme right political parties in Europe has been driven by middle-class voters who are not in financial hardship but fear for their economic and societal status (Im et al, 2019). Similar anxieties contributed to the outcome of the US presidential election in 2016 (Frey et al, 2018). The gilets jaunes protests in France were overwhelmingly supported by workers, not the unemployed (Kurer and Palier, 2019). Similarly, the Brexit vote is believed to have been decided not by frustrated, unskilled unemployed 'outsiders' but by workers anxious about their upward social mobility and future outlook (Antonucci et al, 2017).

Improving job quality requires a sound conceptual approach, effective monitoring tools and targeted policies. Fortunately, there already exists a comprehensive foundation in the EU from which to start designing job-quality interventions. Our comparison of the policy frameworks (Table 2) shows that Eurofound's job quality framework is the most balanced across the four aspects of job quality. It does not confuse job-level indicators with individual mediators or country/sector-level antecedents. The European Parliament endorsed the model in 2016^{14} , and it forms the basis of Eurofound's reports on job quality in Europe. The framework, together with its accompanying survey, allows the monitoring of hard-to-measure dimensions relating to job content and interpersonal relationships at work. This is particularly important since those aspects have seen hardly any meaningful policy action at the European level. Initiatives in Belgium (Box 2) – with financing from the European Social Fund – might serve as an inspiration for policy at the European level.

Box 2: ESF Flanders policy initiatives on job quality

'Workability' or 'sustainable work' is one of the nine main themes of the Flemish arm of the European Social Fund (ESF) in Belgium¹⁵. The effect of their initiatives in this area is not unambiguously positive, as stated in an impact evaluation: "The key here is to strike a balance between giving autonomy and providing direction. This research shows that finding that balance is easier said than done" (Desmet *et al*, 2021). Thus, while implementation should be refined, the following support is provided to companies that want to improve job quality for their employees:

- Workability cheques: subsidies to identify workability problems (through surveys or other data collection) in SMEs and non-profits.
- SME support: subsidies for training and consultations on workability for SMEs.

15 See https://esf-vlaanderen.be/nl/inspiratiebron/themas/werkgelegenheid/werkgelegenheid.

 $^{14\} The\ European\ Parliament\ endorsed\ Eurofound's\ model\ in\ 2016\ in\ a\ resolution\ on\ working-time\ arrangements\ and\ work-life\ balance;\ see\ \underline{https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52016IP0338}.$

- DRIVE: a programme to improve the motivation of SME employees based on self-determination theory (see Table 1).
- LEO: an experiment in which three trajectories of leadership are offered to managers (and their team), plus an impact study, through intermediary sector organisations.
- AI2020: human-capital guidance for SMEs going through a digital transformation and implementing data-driven digital technologies.
- Organising differently: support for solving structural coordination problems to improve the adaptability of organisations and the workability of its employees.

6 Policy recommendations

Job quality in the digital transition will be a crucial policy area for the next decade. A better understanding of this concept among a wider range of stakeholders is needed to ensure the EU's 2030 goal of more and better jobs is reached. We therefore urge European partners to take a joint stand and make clear policy commitments.

In particular:

- More effort to ensure balanced job content (in terms of workloads and autonomy) and supportive interpersonal relationships is necessary to mitigate the mental-health crisis and reverse the growing burnout epidemic.
- Information on burnout should be collected at European level. It is a concrete and measurable outcome of imbalances in job content and poor work social environments. Data on burnout can serve to validate the selection of job quality indicators, analyse differences in outcomes across Europe, and evaluate the effect of interventions. Definitions and data collection procedures exist already (Box 1).
- Indicators that measure imbalances in job content need to be constructed in a way that
 allows effective interventions in jobs, either through reducing workloads and other job demands, or by increasing autonomy or support. A task-level approach might be appropriate
 given current task-replacing technologies. Sector-level approaches might also be productive, as most job-content imbalances in specific occupations are known at the sector level.
- More knowledge about effective policymaking in the area of job quality should be acquired. Is target-setting effective and if so at what level of intervention? Which regulatory policies work? Which subsidy programmes, training programmes and measurement instruments are effective in supporting interventions within organisations? Which interventions have the best wellbeing outcomes for workers?
- In light of the stark geographical variation in job quality and burnout, policymakers should enable international exchange, such as inter-European forums, to share good practices across countries and within sectors, involving all social partners and stakeholders.

References

- Antonucci, L., L. Horvath, Y. Kutiyski and A. Krouwel (2017) 'The malaise of the squeezed middle: Challenging the narrative of the 'left behind' Brexiter', *Competition & Change* 21(3): 211–229
- Bakker, A.B. and E. Demerouti (2017) 'Job demands-resources theory: taking stock and looking forward', Journal of Occupational Health Psychology, 22(3): 273
- Barrick, M.R., G.R. Thurgood, T.A. Smith and S.H. Courtright (2015) 'Collective organizational engagement: Linking motivational antecedents, strategic implementation, and firm performance,' *Academy of Management Journal* 58(1): 111-135
- Bisin, A. and T. Verdier (2001) 'The economics of cultural transmission and the dynamics of preferences,' Journal of Economic Theory 97(2): 298-319
- Bowles, S. (1998) 'Endogenous Preferences: The Cultural Consequences of Markets and Other Economic Institutions', *Journal of Economic Literature* 36(1): 75–111, available at http://www.jstor.org/stable/2564952
- Brown, A., A. Charlwood and D.A. Spencer (2012) 'Not all that it might seem: why job satisfaction is worth studying despite it being a poor summary measure of job quality,' *Work, Employment and Society* 26(6): 1007-1018
- Bryson, A., J. Forth and L. Stokes (2017) 'Does Employees' Subjective Well-Being Affect Workplace Performance?' Human Relations 70(8): 1017–37, available at https://doi.org/10.1177/0018726717693073
- Cazes, S., A. Hijzen and A. Saint-Martin (2015) 'Measuring and Assessing Job Quality: The OECD Job Quality Framework', *OECD Social, Employment and Migration Working Papers* No. 174, OECD Publishing, available at https://doi.org/10.1787/5jrp02kjw1mr-en
- Clark, A.E. (2015) 'What makes a good job? Job quality and job satisfaction,' World of Labor, December, IZA Institute of Labor Economics
- Cooke, G.B., J. Donaghey and I.U. Zeytinoglu (2013) 'The nuanced nature of work quality: Evidence from rural Newfoundland and Ireland,' *Human Relations* 66(4): 503-527
- Cunha, M., J. Pereira, J. Cunha and S. Gascón (2014) *Evaluation Report of Psychosocial Risk Profile 2008-*2013: People Management and Healthy Organisations, Associação Portuguesa de Psicologia da Saúde Ocupacional, Lisbon
- Davoine, L., C. Erhel and M. Guergoat-Lariviere (2008) 'Monitoring quality in work: European employment strategy indicators and beyond, *International Labour Review* 147(2-3): 163-198
- Deci, E.L. and R.M. Ryan (2012) 'Self-determination theory', in P.A.M. Van Lange, A.W. Kruglanski and E.T. Higgins (eds) *Handbook of theories of social psychology*, Sage Publications Ltd
- Demerouti, E., A.B. Bakker, F. Nachreiner and W.B. Schaufeli (2001) 'The job demands-resources model of burnout', *Journal of Applied Psychology* 86(3): 499
- Desmet, S., S. De Bock, P. Álamos-Concha and B. Cambré (2021) 'De impact van organisatiestructuur op het probleemoplossend vermogen van teams', *Over.Werk. Tijdschrift van het Steunpunt Werk* 31(1): 186-193, available at https://www.steunpuntwerk.be/files/publications/OW/OW_2021_1/overwerk_2021_1_19.pdf
- Durand, M. (2015) 'The OECD Better Life Initiative: *How's Life?* and the Measurement of Well-Being,' *Review of Income and Wealth* 61: 4-17, available at https://doi.org/10.1111/roiw.12156
- Ethiraj, S.K. and D. Levinthal (2004) 'Bounded Rationality and the Search for Organizational Architecture:

 An Evolutionary Perspective on the Design of Organizations and Their Evolvability', *Administrative Science Quarterly* 49(3): 404–437, available at http://www.jstor.org/stable/4131441

- Eurofound (2018) *Burnout in the workplace: A review of data and policy responses in the EU*, Publications Office of the European Union, Luxembourg
- Eurofound (2021), Working conditions and sustainable work: An analysis using the job quality framework, Challenges and prospects in the EU series, Publications Office of the European Union, Luxembourg.
- European Commission (2018) European Pillar of Social Rights, available at https://data.europa.eu/doi/10.2792/154364
- European Commission (2021) European pillar of social rights action plan, Luxembourg: Publications office of the European Union, available at https://op.europa.eu/webpub/empl/european-pillar-of-social-rights/en/#chapter2
- European Council (2000) 'Presidency Conclusions European Council, Lisbon, 23 and 24 March 2000,' available at https://www.consilium.europa.eu/en/european-council/conclusions/1993-2003/
- European Council (2021) 'The Porto declaration', press release, 8 May, available at https://www.consilium.europa.eu/en/press/press-releases/2021/05/08/the-porto-declaration/
- Findlay P., A.L. Kalleberg and C. Warhurst (2013) "The challenge of job quality," *Human Relations* 66(4): 441–451
- Frey, C.B., T. Berger and C. Chen (2018) 'Political machinery: Did robots swing the 2016 US presidential election?' Oxford Review of Economic Policy 34(3): 418–442
- Gagné, M. and E.L. Deci (2005) 'Self-determination theory and work motivation', *Journal of Organizational Behavior* 26(4): 331-362
- Green, F. (2021) 'Decent work and the quality of work and employment,' *GLO Discussion Paper* 817, Global Labor Organization
- Hackman, J.R. and G.R. Oldham (1975) 'Development of the job diagnostic survey,' *Journal of Applied Psychology* 60(2): 159
- Hackman, J.R. and G.R. Oldham (1976) 'Motivation through the design of work: Test of a theory,' Organizational Behavior and Human Performance 16(2): 250-279
- Harter, J.K., F.L. Schmidt, J.W. Asplund, E.A. Killham and S. Agrawal (2010) 'Causal Impact of Employee Work Perceptions on the Bottom Line of Organizations', *Perspectives on Psychological Science* 5(4): 378–389, available at https://doi.org/10.1177/1745691610374589
- Harter, J.K., F.L. Schmidt and T.L. Hayes (2002) 'Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: a meta-analysis', *Journal of Applied Psychology* 87(2): 268.
- Herzberg, F., B. Mausner and B. Snyderman (1959) The motivation to work (2nd ed), John Wiley
- Herzberg, F.I. (1966) Work and the nature of man, World
- Hooftman, W.E., G.M.J. Mars, B. Janssen, E.M.M. De Vroome, A.J.S.F. Pleijers, J.J.M. Michiels and S.N.J. van den Bossche (2017) *Nationale enquête arbeidsomstandigheden 2016*, TNO, Centraal Bureau voor de Statistiek (CBS) and Ministerie van Sociale Zaken en Werkgelegenheid, Leiden and Heerlen
- Humphrey, S.E., J.D. Nahrgang and F.P. Morgeson (2007) 'Integrating motivational, social, and contextual work design features: a meta-analytic summary and theoretical extension of the work design literature', Journal of Applied Psychology 92(5): 1332
- ILO (2013) 'Decent work indicators. Guidelines for producers and users of statistical and legal framework indicators', ILO Manual, second edition, International Labor Organisation, available at https://www.ilo.org/wcmsp5/groups/public/---dgreports/---integration/documents/publication/wcms_229374.
 pdf
- Im, Z.J., N. Mayer, B. Palier and J. Rovny (2019) "The "losers of automation": A reservoir of votes for the radical right?" *Research & Politics* 6(1)

- Karasek, R.A. (1979) 'Job demands, job decision latitude, and mental strain: Implications for job redesign,' Administrative Science Quarterly 24(2): 285-308
- Kaplan, R.S. (1984) 'The evolution of management accounting,' The Accounting Review 59(3): 390-418
- Knieps, F. (2019) 'Psychische Gesundheit und Arbeit', in *BKK Gesundheitsreport 2019*, Medizinisch Wissentschaftliche Verlagsgesellschaft, available at https://www.bkk-dachverband.de/publikationen/bkk-gesundheitsreport/bkk-gesundheitsreport-2019
- Kurer, T. and B. Palier (2019) 'Shrinking and shouting: the political revolt of the declining middle in times of employment polarization', *Research & Politics*, 6(1)
- Leschke, J., A. Watt and M. Finn (2008) 'Putting a number on job quality? Constructing a European Job Quality Index', *Working Paper* 2008.03, European Trade Union Institute
- Leschke, J., A. Watt and M. Finn (2012) 'Job quality in the crisis an update of the Job Quality Index (JQI)', Working Paper 2021.07, European Trade Union Institute
- Loveridge, R. and A.L. Mok (2012) *Theories of labour market segmentation: a critique*, Springer Science & Business Media, Chicago
- Martinko, M.J. and W.L. Gardner (1982) 'Learned helplessness: An alternative explanation for performance deficits', *Academy of Management review* 7(2): 195-204
- Maslach, C., S.E. Jackson and M.P. Leiter (1996) *Maslach Burnout Inventory Manual* (3rd. Ed.), Palo Alto: Consulting Psychologists Press
- McCrate, E. (1988) 'Gender Difference: The Role of Endogenous Preferences and Collective Action', *The American Economic Review* 78(2): 235–239, available at http://www.jstor.org/stable/1818129
- Muñoz de Bustillo, R., E. Fernández-Macías, F. Esteve and J.I. Antón (2011) 'E pluribus unum? A critical survey of job quality indicators', *Socio-Economic Review* 9(3): 447-475
- Muñoz de Bustillo, R., E. Fernández-Macías, J. Ignacio Antón and F. Esteve (2009) *Indicators of Job Quality in the European Union*, study requested by the European Parliament's Committee on Employment and Social Affairs, available at https://www.europarl.europa.eu/document/activities/cont/20110718ATT24284/20110718ATT24284EN.pdf
- Niedhammer, I., A. Milner, B. Geoffroy-Perez, T. Coutrot, A.D. LaMontagne and J.F. Chastang (2020) 'Psychosocial work exposures of the job strain model and cardiovascular mortality in France: results from the STRESSJEM prospective study,' *Scandinavian Journal of Work, Environment & Health* 46.5 (2020): 542
- Nikolova M. and C. Graham (2022) 'The Economics of Happiness', in K.F. Zimmermann (ed) *Handbook* of Labor, Human Resources and Population Economics, Springer, available at https://doi.org/10.1007/978-3-319-57365-6 177-2
- Pega, F., B. Náfrádi, N.C. Momen, Y. Ujita, K.N. Streicher, A.M. Prüss-Üstün ... L. Godderis (2021) 'Global, regional, and national burdens of ischemic heart disease and stroke attributable to exposure to long working hours for 194 countries, 2000-2016: A systematic analysis from the WHO/ILO Joint Estimates of the Work-related Burden of Disease and Injury, *Environment International* 154: 106595.
- Piasna, A., B. Burchell and K. Sehnbruch (2019) 'Job quality in European employment policy: one step forward, two steps back?' *Transfer* 25(2): 165-180
- Rugulies, R., E. Framke, J.K. Sørensen, A.C. Svane-Petersen, K. Alexanderson, J.P. Bonde ... M. Kivimäki (2020) 'Persistent and changing job strain and risk of coronary heart disease. A population-based cohort study of 1.6 million employees in Denmark', Scandinavian Journal of Work, Environment & Health 46(5): 498
- Schaufeli, W.B. (2018) *Burnout in Europe: Relations with national economy, governance, and culture,*Research Unit Occupational & Organizational Psychology and Professional Learning (internal report),
 KU Leuven, Belgium

- Schokkaert, E., L. Van Ootegem and E. Verhofstadt (2011) 'Preferences and subjective satisfaction: Measuring well-being on the job for policy evaluation', *CESifo Economic Studies* 57(4): 683-714
- Sonnentag, S. (2017) 'A task-level perspective on work engagement: A new approach that helps to differentiate the concepts of engagement and burnout,' *Burnout Research* 5 (2017): 12-20
- Taris, T.W., A.B. Bakker, W.B. Schaufeli, J. Stoffelsen and D. Van Dierendonck (2005) 'Job control and burnout across occupations', *Psychological Reports* 97(3): 955-961
- UNECE (2015) *Handbook on measuring quality of employment,* United Nations Economic Commission for Europe, available at https://unece.org/statistics/publications/handbook-measuring-quality-employment
- Vandenbrande T., S. Vandekerckhove, P. Vendramin, G. Valenduc, R. Huys, G. Van Hootegem and H. De Witte (2013) *Quality of Work and Employment in Belgium*, Eurofound