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Job Quality, Health and Productivity: An evidence-based framework for analysis

Anne Saint-Martin,

Hande Inanc,

Christopher Prinz

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Job Quality, Health and Productivity

An evidence-based framework for analysis

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For Further information contact:
Anne Saint-Martin, OECD (Anne.Saint-Martin@oecd.org), Hande Inanc, Mathematica Policy Research (handeinanc@gmail.com), Christopher Prinz, OECD (Christopher.Prinz@oecd.org)

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This paper is the second product of a new OECD activity that will explore the link between working conditions and productivity and eventually involve country reviews to identify policies that help to improve both, working conditions and productivity, and thus economic performance of companies and countries. The activity builds on two earlier work streams of the OECD, the *Job Quality Framework* and the *Mental Health and Work* review. The authors would like to than Mark Keese, Stéphane Carcillo, Fabrice Murtin, Sandrine Cazes, Andrea Garnero, Marguerita Lane and Kate Cornford for comments to an earlier version of the paper. The paper also benefitted from the discussion during the meeting of the Employment, Labour and Social Affairs Committee in October 2018. The authors are responsible for any remaining shortcomings.

Abstract

The nature, content and milieu of work – i.e. the quality of the working environment – matter in many ways for people, firms and society as a whole. There is a great deal of evidence to show clear associations between job quality and the health of workers, their ability to successfully combine work and life while fully mobilising their skills and abilities to build a career, and their productivity. Investments in quality working environments can be welfare enhancing and economically efficient. Policies and practices reflect these findings insufficiently, an apparent paradox that finds its roots in various market failures. There is scope for public intervention to raise awareness, to ensure better coordination of key stakeholders (employers, workers' representatives and various public entities) and to put in place the right financial incentives for firms to invest in better working conditions. Action in this field is also important in view of ongoing considerable changes in the labour market. The future of work is very uncertain at this stage; the digitalisation and uberisation of work have the potential for improvements in working conditions but also bear the risk of de-skilling, lower pay, lower job security and poor working conditions for parts of the labour force.

Résumé

La nature, le contenu et le contexte de travail – i.e. la qualité de l'environnement de travail – affectent de multiples façons les individus, les entreprises et la société dans son ensemble. Nombreuses sont les études qui mettent en évidence un lien marqué entre la qualité des emplois, la santé des travailleurs et leur capacité à combiner de façon satisfaisante vie professionnelle et vie privée tout en mobilisant pleinement leurs qualifications et leurs compétences pour construire leur carrière. Investir dans la qualité de l'environnement de travail peut être à la fois source de bien-être et d'efficacité économique. Qu'il s'agisse des politiques ou des pratiques, cela est insuffisamment refléter. Cet apparent paradoxe trouve son origine dans diverses imperfections de marché, qui plaident en faveur d'une intervention des pouvoirs publics visant à mieux informer et coordonner les différentes parties prenantes (partenaires sociaux et organismes publiques), ainsi qu'à mettre en place un système d'incitations favorable à l'investissement des entreprises dans l'amélioration de l'environnement de travail. Agir dans ce domaine est également important en regard des transformations actuelles et à venir, porteuses d'incertitudes quant à l'évolution des conditions de travail. Si la digitalisation et l'uberisation du travail peuvent amener certaines améliorations, elles peuvent également comporter certains risques en termes de déqualification, moindre rémunération, insécurité de l'emploi et dégradation des conditions de travail.

Executive summary

The economic case for action to improve working conditions is very strong...

Evidence is clear that the nature, content and milieu of work – i.e. the quality of the working environment – matter in many ways for people, firms and society as a whole.

Stimulating, well-organised, safe and healthy working environments pay a double dividend: higher well-being and greater success at work for people. Conversely, over- and under-stimulation at work produce similarly poor outcomes: mental and physical exhaustion, and low performance.

Quality work environments also have an impact on various business outcomes, such as productivity gains (at both the intensive and extensive margin); service and product quality; client satisfaction and loyalty; and financial performance.

Overall, ensuring a good working environment is not only good for people but also for business. Society ultimately reaps the benefits in the form of higher tax revenues and lower social spending. Hence, quality jobs are good for public finance too. Investing in better work environments is thus both welfare enhancing and economically efficient.

… but too little is done to ensure better work environments

This apparent paradox finds its roots in various market failures that hamper adequate investments by firms and organisations into better working environments.

There is a considerable lack of awareness on the costs of inaction and the net benefits from action. While there is growing evidence of what works and what does not, knowledge and knowhow often remain within experts in the field (e.g. research community, audit and consulting firms).

There is a considerable lack of coordination between key stakeholders: employers, workers' representatives and various public entities. The latter tend to work in silos, although a holistic and integrated approach is most often required to identify what should be done and how workplace innovations can be implemented effectively.

There are considerable gaps and weaknesses in the financial incentive structure. Investment into better working environments is seen as being almost exclusively an issue for businesses, although financial returns on investment spread across all tax payers (both consumers and firms). A fair sharing of the costs and benefits is essential to promoting private investments in better working conditions.

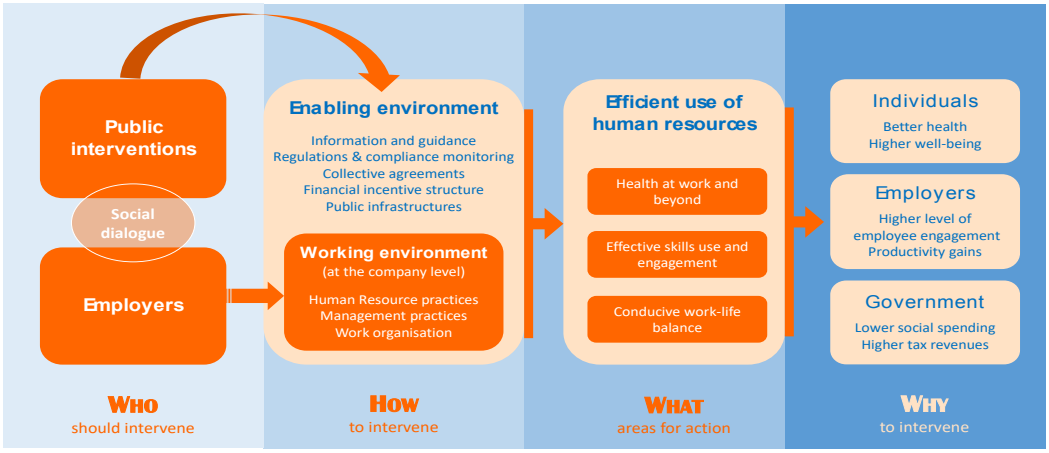
The three key deliverables: health, work-life balance, and the value of skills

Jobs do not exist in a vacuum: creating the enabling conditions for efficient investments by firms into better jobs is essential. It requires the right mix of support, incentives and liabilities in three critical components or outcome indicators of job quality: health, work-life balance and the value of skills (see analytic framework in the figure below).

The adequate policy mix can vary across industries as well as within them according to occupation and firm size. It will also vary across countries according to social norms, the industrial relations landscape and the nature of existing gaps in the quality of work

environments. The ultimate objectives, however, are common: ensuring a more efficient use of human resources to deliver better life and work outcomes.

The job quality-heath-productivity nexus



Source: OECD Secretariat.

Workplaces can help break the links between health and socio-economic inequalities

While life expectancy has increased, working-age disability is a growing concern. Despite successful treatments and therapies, musculoskeletal and mental disorders remain the leading causes of sickness absence, work disability and early retirements.

Effective prevention is possible and saves money. It requires labour inspectorates, occupational health services and general practitioners to work closely with employers and workers' representatives, to create a culture of health in the world of work.

Employers are responsible for ensuring working conditions that prevent work itself from becoming a cause of illness. Most countries restrict occupational health policy to preventing workplace hazards and, to a much lesser extent, enabling workers with health problems to stay at work. Workplaces also have a key role to play in tackling harmful health-related behaviours including obesity, lack of exercise and alcohol abuse, to reverse the rise in musculoskeletal and mental illness.

Workplaces provide a unique setting to reach out to individuals at potential health risk including people with low health literacy who often need the most support but receive the least. Moreover, employers have access to individuals at an age when interventions can still change their long-term health trajectory.

Employers need guidance and support to help their workers and make a positive change. Effective workplace programmes are multi-faceted and tailored to the company's work environment, work culture and business objectives. They require technical expertise and solid knowledge in the field of health and safety. Moreover, healthcare services should themselves be work-oriented to be effective in preventing work disability.

The availability and quality of occupational health services are central to creating adequate workplace cultures and adequate healthcare approaches and to implementing health-aware workplace practices and work-aware healthcare practices.

Work-life balance can play a key role in the quest for greater inclusiveness

Life does not allow the same way of working over the life cycle. Employers, trade unions, labour inspectorates, but also occupational health services and social policies, have a shared task to ensure everyone can carry on working in an environment conducive to personal circumstances (e.g. family situation, health and ageing).

Work-life balancing faces new challenges as the nature of work is changing. Communication technologies facilitate the introduction of flexible work arrangements for the benefit of workers and employers alike. Low-skilled and older workers have poorer access to new technologies, curtailing their access to new forms of workplace flexibility.

It remains of key importance to improve the old recipes for better reconciliation between work and life, namely working part-time or atypical hours. Part-time work widely comes at the price of reduced earnings, sometimes even at the risk of in-work poverty, and often curtails career prospects. People should be able to move easily in but also out of part-time work when life circumstances change. Adequate income supports are also necessary for the most vulnerable who face binding budget constraints and, at the same time, are under severe time constraints or have a reduced work capacity.

Shift work raises important health and safety issues, and curtails social life. Yet these risks can be reduced with the right interventions at the workplace. For instance, switching from slow to fast rotation, from backward to forward rotation, or to self-scheduling are three practices that improve well-being of shift workers significantly.

Hard and soft skills and effective skills use matter for success at work

The bundle of skills people actually use in their job, beyond the qualifications they possess, drives work performance and job satisfaction. This bundle includes hard skills and soft skills, both equally important for people to live a good life and to build a successful career. Skills utilisation is central to workers' engagement, commitment and personal accomplishment at work. Frequent occurrence of skill mismatch and high levels of worker disengagement (only 15% of employees report high levels of engagement, while 18% feel not engaged at all) show considerable room for improvement.

Research findings demonstrate the importance of work organisation and management practices for worker engagement and skills utilisation. Worker autonomy is critical to the prevention of disengagement and bore-out, as well as the use and development of skills. Job rotation has a beneficial impact on workers' health, while job enrichment increases job satisfaction and engagement. Line managers are critical. Adequate feedback encourages and helps employees to deploy their hard and soft skills, and can strengthen those skills.

Work organisation using workers' skills and abilities leads to higher productivity, profitability and product or service quality. Contrary to what is usually thought, the opportunities for, and benefits from, strengthening workers voice and decision latitude in corporate governance extend well beyond high-skilled jobs to cover all jobs.

Relatively simple interventions, that merely involve qualitative changes and incremental workplace innovations, can make a significant difference in terms of both job satisfaction and performance. Insufficient awareness and lack of basic knowhow are the main implementation barriers, notably for stat-ups and small organisations that often cannot afford having a dedicated human resource function. Social partners, but also public policies, have a key role to play in facilitating knowledge transfers.

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An evidence-based framework for analysis

Job quality matters in many ways for people, firms and society as a whole. First, it is a powerful determinant of workers' wellbeing and that of the households they live in. Second, it has an important impact on the ability of firms to attract and retain workers and on worker engagement and performance. Third, society ultimately pays the bill for a labour market that does not provide good jobs, in the form of lower tax revenues and higher social spending.

The importance of improving job quality has risen up the policy agenda. The OECD has developed a Job Quality Framework that was endorsed by the G20 leaders (Box 1). Job quality is also a key dimension of the OECD's new Jobs Strategy. However, adequate policy responses remain underdeveloped; this is true not only at the macro level but also at the micro level. Workplace practices and policies of individual employers insufficiently reflect the importance of ensuring a good working environment, both in the private and the public sector. This apparent paradox finds its roots in various market failures that hamper adequate investments by firms and organisations into better working environments. There is a considerable lack of awareness on the costs of inaction and the net benefits from action, a considerable of lack of coordination between key stakeholders (employers, workers' representatives and various public entities), and considerable gaps and weaknesses in the financial incentive structure. To sum up, the usual suspects are at play, just as for many employment programmes and social policies.

Too little is done and there is no time for complacency. Poor working conditions provoke poor performance, both directly and through their impact on workers' health. High work intensity coupled with limited control over one's work, poor work-life balance and weak support from co-workers and management deteriorate workers' health and wellbeing. Across the OECD, every year millions of working days are lost to sickness absence. The added loss in health-related underperformance on the job (commonly referred to as "presenteeism") represents an even higher cost. Poor health is also a major cause of premature labour market exit, early retirement and social inequality. Adding forgone taxes and spending on health care and social welfare, the total economic cost can be very high, up to several percentage points of GDP. The loss in well-being is also high, even if difficult to quantify. In the face of rapid population ageing, changing labour markets, growing inequalities and rising public social spending, the economic case for action to improve working conditions is very strong (Section 1).

Governments, businesses and workers' representatives have a shared task to address and improve the quality of the work environment. Employers together with workers' representatives must identify and design work processes, management practices and workplace conditions that promote workers' health and wellbeing and broaden their life choices and lifelong career opportunities.[1] Governments have an important role to play in

[1] Unions and collective bargaining can play an important role for the various components of quality work environments. For example, firms with a recognised form of employee representation (*e.g.* a trade union or works council) tend to provide more opportunities for workers to upgrade their skills and competencies as well as to make better use of those skills (OECD, 2016[129]; OECD, 2018[147]). Likewise, good industrial relations institutions and practices are associated with better observance of occupational health and safety rules, better psychosocial risk management practices, lower

nurturing an enabling environment and combatting the various market failures that hamper adequate investments by firms into better-quality work. This requires the right mix of incentives and liabilities, which can vary across industries as well as within them according to occupation and firm size. It will also vary across countries according to social norms, the industrial relations landscape and the nature of existing gaps in job quality and working conditions.

Regardless of the policy mix, the challenges are common to all OECD countries. Addressing them requires concerted action in three critical areas of job quality that can improve life and work outcomes, and ensure a more efficient use of human resources:

- Promoting health at work and beyond (Section 2);
- Striking a healthy work-life balance, at all ages (Section 3);
- Making full use of hard and soft skills that workers possess (Section 4).

Box 1. Defining and measuring the quality of the working environment

The OECD assesses job quality along three fundamental dimensions, including earnings, labour market security, and the quality of the working environment. The latter dimension plays a primary role in the job quality-health-productivity nexus as it encompasses the most important non-pecuniary aspects of a job, all related to work organisation, management practices and social ties at work.

More precisely, the *OECD Job Quality Framework* defines the "working environment" as a combination of job demands faced by workers (*e.g.* time pressure, exposure to physical or psychological risk factors) and job resources available to meet these demands (*e.g.* support from managers, interactions with colleagues, decision latitude). Good-quality work environments are characterised by a right balance between job demands and job resources, while poor work environments are associated with job stain, *i.e.* work situations where the amount of job demands exceeds that of job resources (OECD, 2013[1]; OECD, 2014[2]).

The *OECD Guidelines on Measuring the Quality of the Working Environment* provide a comprehensive measurement framework, as well as questionnaires on the quality of the working environment for potential inclusion into various survey vehicles run by National Statistical Offices (OECD, 2017[3]). These questionnaires also offer a useful set of indicators for businesses that aim at receiving feedback on the quality of their working environment as perceived by their workers. In the future, the Guidelines should contribute to harmonised international evidence on the quality of the working environment.

accident rates and fewer work-related health problems (Menéndez et al., 2009[148]; Wadsworth and Walters, 2018[149]).

A strong case for intervention

Job quality is closely associated with employee well-being and productivity, which in turn affects firms' profitability. Poor quality jobs harm individuals' physical and mental well-being, cause productivity losses via increased absenteeism and presenteeism at work, and reduce profit margins of both public and private companies. An economy dominated by poor quality jobs, thus, bears the burden of increased social spending and forgone tax revenues. Bad jobs are bad for workers, employers, and the society:

- There is a good deal of evidence that stimulating work environments pay a double dividend: higher well-being and greater success at work for people. Conversely, over- and under-stimulation at work produce similarly poor outcomes: mental and physical exhaustion, and lower task performance.
- There is also growing evidence to suggest that the quality work environments have an impact on various business outcomes, such as: productivity gains at both the intensive and extensive margin; service and product quality; client satisfaction and loyalty; and financial performance.
- Although the total cost of inaction and the benefits resulting from better policy and practice cannot be evaluated precisely, there are good indications that private and public investments in better quality work environments might be both welfare-enhancing and economically efficient.

The case for individuals

Work organisation and social ties at the workplace are key determinants of the employee-employer relationship. Because it has an impact on people's state of mind while at work, it influences their behaviours at the workplace, in turn driving their work performance. These ideas are not new, quite the contrary: they have always been present in labour economics theory. Views on the intrinsic value of work for individuals have considerably evolved over time, however. Starting from classical economists according to whom work was never good in itself but only a painful means to something valuable (consumption or economic progress), work has become a potential source of personal accomplishment, notably with the emergence of the economics of happiness (Box 2).

In large part, this evolution was driven by a wealth of studies in psychology, sociology and epidemiology, which have long been investigating the relationships between on the one hand, the nature, content and context of work, and on the other hand, workers' well-being and task performance. These relationships are illustrated in the concepts of burnout and bore-out, and on the positive side, that of work engagement:

- *Burnout* is defined as a syndrome of exhaustion, cynicism, and professional inefficacy (Maslach, Schaufeli and Leiter, 2001[4]). Exhaustion refers to an extreme form of fatigue caused by prolonged exposure to multiple work stressors, cynicism reflects an indifferent or distant attitude towards work objects or work content, and professional inefficacy is related to feelings of occupational insufficiency and poor professional self-esteem. Initially, burnout was thought to occur exclusively among professionals who deal with people face-to-face, notably in the education, health and social service sectors. But in the 1990s the concept of burnout was broadened

to include both social and non-social aspects of work, and instruments were developed for the assessment of burnout risks in workplaces. The most widely used is the Maslach Burnout Inventory (Maslach, Jackson and Leiter, 1996[5]).

- *Bore-out or work boredom* is defined as an unpleasant state of relatively low arousal and high dissatisfaction due to an unchallenging, passive, work situation (Schaufeli and Salanova, 2014[6]). This concept first appeared in the 1920s with the development of the Fordist approach to work, and was investigated in relation to monotonous and repetitive work at assembly lines. Since then, the causes and consequences of bore-out have been somewhat neglected by researchers, as bore-out was often seen as being merely the opposite of engagement. Recent studies have questioned this view, suggesting that bore-out is a distinct construct which potentially concerns a wide range of jobs and industries and requires specific instruments – such as the Dutch Boredom Scale – to be understood and assessed properly (Reijseger et al., 2013[7]; Harju, Hakanen and Schaufeli, 2014[8]).
- *Engagement* is defined as a positive and fulfilling work-related state of mind that is characterized by vigour, dedication, and absorption (Schaufeli et al., 2002[9]). Vigour refers to a high energy level and mental resilience while working, the willingness to invest effort into work, and persistence during difficult times. Dedication is defined as the sense of significance, inspiration, enthusiasm, pride, and challenge. Absorption is characterized by being concentrated and engrossed in one's work, a sense that time passes quickly, and difficulty in detaching oneself from work. The concept of engagement first appeared in the business context and then entered academia in the wake of the positive psychology movement after the turn of the century. Just as in the case of burnout and bore-out, engagement is a measurable concept. Most academic studies use the Utrecht Work Engagement Scale, but Gallup's Q12 survey on work engagement is also popular in the business community (Schaufeli and Bakker, 2003[10]; Gallup, 2017[11]).

These three concepts are intrinsically related to mental well-being at work. The relationship works both ways: repetitive experience of positive (negative) emotions in the workplace is good (bad) for mental health, and healthy (unwell) workers tend to perceive or experience positive (negative) emotions more frequently in their daily life, including at work. Burnout, bore-out and engagement are also related to individuals' expectations from work, which vary across workers according to personality traits and personal background. As a result, how much health is impacted by the nature and content of work will vary from individual to individual: Some workers can be trapped in a vicious circle while others may experience a virtuous circle, whereby job and individual characteristics are mutually reinforcing.

Overall, there is no longer room for any doubt that a poor working environment and psychosocial risks at work are harmful for the mental health and well-being of workers of any occupation and any grade. The consequences of poor working environment far exceed purely work-related well-being, causing a decline in overall life satisfaction and perceived quality of life. Bad jobs are bad for people.

Box 2. The intrinsic value of work in labour economics theory

Quality work environments are good for people and businesses. This idea has always been present in labour economy theory, where the intrinsic value of work is a key determinant of wage and employment levels. From pain to gain, views about how much people value work have considerably evolved over time (Spencer, 2014[12]).

Adam Smith, for instance, defined work as "toil and trouble", and John Stuart Mill concurred this view by writing that "there is nothing laudable in work for work's sake" (Smith, 1976[13]; Mill, 1984[14]). Neoclassical economists took a first step towards a more positive approach, considering leisure time as a "good thing" and work as an opportunity cost rather than as a pain cost. This has then become a foundation for the standard labour supply model in all economics textbooks. At equilibrium, labour market participation and wages are inextricably linked to the intrinsic value of work for people. In essence, voluntary unemployment arises because this value is too low. The same argument also applies to involuntary unemployment, for instance in the efficiency wage model developed by Carl Shapiro and Joseph Stiglitz. The approach is slightly different, however. There is no explicit value judgement on work itself, rather equilibrium unemployment results from potential shrinking behaviours of individual workers, reluctant to make any effort (Shapiro and Stiglitz, 1984[15]). Hence, employers have to set wages above the market-clearing level to solve moral hazard problems. Irrespective of the terminology used and the approach taken, disutility of work, value of leisure and shirking probability are all black boxes that relate to what nowadays is referred to as the quality of work environment.

By opening those black boxes, perspectives have changed dramatically. Building on various strands of literature (psychology, sociology, but also human resource management), there is growing recognition among labour economists that above and beyond individual preferences and the amount of effort produced, work organisation and interpersonal relationships in the workplace are key constituencies of the intrinsic value of work for people. There is consensus that this value ranges in a continuum from positive outcomes to negative ones. What kind of broad outcomes it concerns has not changed: the quality of work environment affects both well-being and labour market behaviours. In other words, it enters into the utility function of workers and, as such, has an impact on their employment outcomes.

Long working hours, inflexibility of working arrangements, unrealistic demands and tight deadlines, unclear task expectations, lack of decision latitude and control, and unsupportive supervisors and colleagues are well-known factors that strongly affect the well-being and mental health of individuals. Such work characteristics are also the key determinants of burnout from work. Workers exposed to these risk factors are more likely to suffer from depression and anxiety, experience strain, or report sleeping problems and work-life imbalances (OECD, 2014[2]). Health consequences of work boredom or bore-out for employees, however, are equally concerning and can include emotional, mental or physical exhaustion, even if empirical evidence is still scarce in this field. Work boredom is usually

found to increase the likelihood of poor self-rated health, stress symptoms and early retirement intentions (Chapelle, 2016[16]; van Hooff and van Hooft, 2016[17]; Harju, Hakanen and Schaufeli, 2014[8]). Similarly, low engagement is found to be associated with several well-being outcomes such as reduced ability to cope with work-related issues, losing sleep over work-related issues, and work-related affect, such as feeling depressed, gloomy, miserable, cheerful, enthusiastic and optimistic (Rayton, Dodge and D'Analeze, 2012[18]).

Bad jobs not only harm individuals' mental health. They also pose a serious risk to physical health and workplace safety. There is a wealth of convincing evidence that individuals exposed to job strain are more likely to develop cardiovascular and coronary heart disease, hypertension, musculoskeletal disorder and high blood pressure and suffer from work accidents (OECD, 2014[2]; Nakata et al., 2006[19]; Kim et al., 2009[20]). Likewise, work boredom may result in vigilance decrement, which in turn tends to increase risk of work injuries and absenteeism (Game, 2007[21]; Bruursema, Kessler and Spector, 2011[22]). Similarly, a report commissioned by the UK Government in 2008 reviewing the situation in prominent companies across various fields, notes that the proportion of engaged in relation to disengaged workers is closely associated with unsafe behaviour and adverse events at the workplace, including workplace accidents and injuries (Rayton, Dodge and D'Analeze, 2012[18]). A global report by Gallup Inc. also shows a strong relationship between employee engagement and the safety incident rates at workplaces (Harter et al., 2016[23]). The adverse health and safety outcomes from poor working conditions exert a huge toll on the affected individuals as well as their employers and the overall economy.

Close relationships and interdependencies also exist between worker performance and the concepts of engagement, burnout or bore-out. For example, stress factors such as heavy workload, emotional demands and work-home conflict are found to decrease in-role performance, *i.e.* formally required outcomes and behaviours (Bakker, Demerouti and Sanz-Vergel, 2014[24]; Bakker, Demerouti and Verbeke, 2004[25]). The same holds true for boredom experienced in the workplace, in part because employees tend to seek distracting behaviours to stay engaged although the impact on work performance may be negative (Cleary et al., 2016[26]). Conversely, for employees facing multiple work stressors, providing additional resources to accomplish job duties is shown to reduce disengagement from work which improves extra-role performance, *i.e.* employees' discretionary efforts and behaviours (Bakker, Demerouti and Verbeke, 2004[25]). Similarly, in a longitudinal study of US employees from a number of sectors including education, health care, government services, financial services, manufacturing, telecommunication and retail, the level of engagement predicts self-rated, supervisor-rated and co-worker-rated in-role performance in the following month (Halbesleben and Wheeler, 2008[27]). Another example is a meta-analysis across a large number of countries and sectors, showing that role-conflict and role-ambiguity are strongly associated with organisational commitment, i.e. the extent to which employees identify with their employer and are committed to the company's goals, which in turn is associated with both self-rated and supervisor-rated job performance (Meyer et al., 2002[28]). A study among UK bank employees also shows that organisational commitment measured in year one is associated with performance appraisal records obtained from the employer in year two (Yalabik et al., 2013[29]).

Another outcome of good working conditions is innovative employee behaviour. Innovative work behaviour that, directly or indirectly, contributes to the development and introduction of innovations takes one or more of three forms: idea generation, idea championing, and idea implementation (De Spiegelaere, Gyes and Hootegem, 2016[30]). In general, individual job characteristics are more closely associated with the generation of

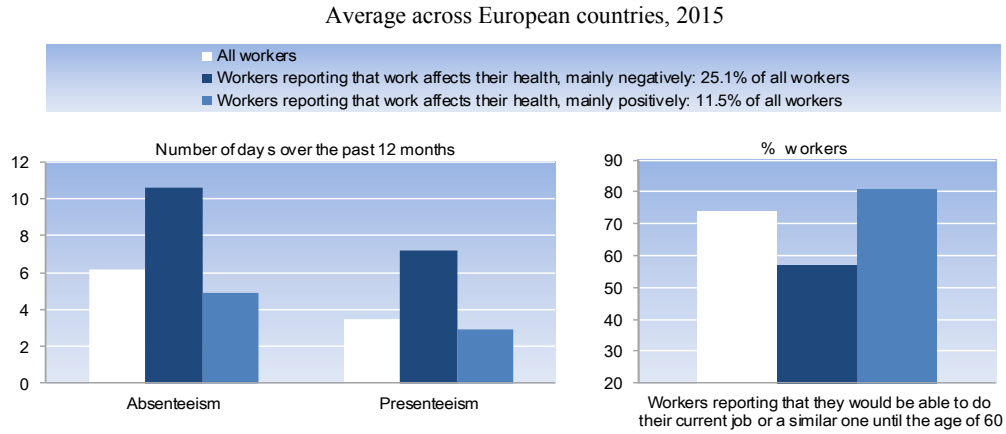
ideas, whereas organizational characteristics are more closely associated with the implementation of ideas (Axtell et al., 2000[31]). Worker autonomy – particularly the ability to choose the method and location of work – is the strongest predictor of innovative work behaviour (De Spiegelaere et al., 2015[32]). Even when faced with time pressure, employees that can exercise autonomy over how they do their job exhibit innovative behaviour, which is mediated by work engagement. On the contrary, job insecurity is strongly and negatively associated with innovative behaviour (De Spiegelaere et al., 2014[33]).

The case for employers

The negative effects of poor working conditions on individuals take a toll on employers, as well. There is wealth of evidence across a variety of countries and industries that strenuous and toxic work environments are closely associated with time lost from work due to sickness absence, lower productivity due to health problems while at work (so-called presenteeism), and health-related early retirements. In Europe, both absenteeism and presenteeism are twice as high for workers reporting to have a job that impairs their physical or mental health as they are for workers reporting that work affects their health mainly positively (Figure 1). The latter are also 1.4 times more likely than the former to report that they would be able to carry on working until the age of 60 in their current or a similar job.

Figure 1. Poor working conditions are associated with higher absenteeism and presenteeism

Average across European countries, 2015



Source: OECD calculations using *European Working Conditions Survey* (2015).

Certain job, workplace, and organizational characteristics are likely to cause sickness absence. Work overload, emotional demands, lack of social support, autonomy, opportunities to learn and develop, and performance reviews at work increase the prevalence and duration of sick leave. This is also true for job dissatisfaction, bullying in the workplace, and a company's lack of acknowledgement of health and well-being as a target (Schaufeli, Bakker and Van Rhenen, 2009[34]; Hafner et al., 2015[35]). Similarly, role ambiguity and role conflict decrease an employee's affective commitment, which in turn leads to absenteeism (Meyer et al., 2002[28]).

Even when employees regularly show up at work, and stay in their jobs for long periods of time, their at-work productivity could be hampered by health problems which might directly be caused by poor working conditions (Arends, Prinz and Abma, 2017[36]). In particular, productivity losses due to mental health problems more often manifest in the

form of presenteeism, rather than absenteeism, especially because of the stigma attached to being mentally ill. Presenteeism is also more prevalent in white-collar than blue-collar workers. While it is difficult to measure productivity losses associated with presenteeism, available evidence suggests that they exceed the losses arising from absences. For example, a conservative estimate for the United Kingdom suggests that presenteeism attributable to mental health problems accounts for two times the working time and cost lost to absenteeism.

On the contrary, employee engagement helps reduce absenteeism and presenteeism. A recent study that compiled reports from retail and service companies worldwide shows that the proportion of engaged employees in relation to the disengaged ones is negatively associated with the yearly number of days of sickness absence (Rayton, Dodge and D'Analeze, 2012[18]). Another global report commissioned by Gallup Inc. predicts a 41 percentage-point difference in absenteeism between top-quartile and bottom-quartile business units in terms of employee engagement (Harter et al., 2016[23]). Employer interventions can also reduce sickness absence. A systematic literature review concluded that days lost to sickness absence are reduced by 30-40% as a result of programmes which include health and safety interventions, reactive interventions (such as occupational health, rehabilitation and absence management), preventive measures (such as work-life balance and time management schemes), and primary care management (PricewaterhouseCoopers, 2008[37]).

A related consequence of good working conditions is employee retention. It is important for firm productivity that core and skilled staff is retained in the company, because staff turnover is associated with considerable costs arising from hiring, replacing, and training new employees. Turnover intentions – an employee's intention to quit a job in the near or midterm future – and actual job separations initiated by employees are good indicators of firms' performance in retaining their staff, and existing research shows that both indicators are highly related to workplace and organizational characteristics. For example, job security guarantees at a workplace are associated with reduced labour turnover, measured as the number of employees who resigned from the establishment in the past 12 months (Wood and de Menezes, 2008[38]). Certain job characteristics such as role ambiguity and role conflict reduce employees' commitment to the organization and job satisfaction which, in turn, increase intentions to quit, as well as actual turnover (Meyer et al., 2002[28]; Yalabik et al., 2013[29]). Studies focusing on organizational-level factors also indicate that engaged employees at a business unit or a workplace report lower rates of employee turnover (Rayton, Dodge and D'Analeze, 2012[18]; Harter, Schmidt and Keyes, 2012[39]). The cost of staff turnover related to mental health problems in one study was estimated to reach around one-third of the corresponding cost of absenteeism (Centre for Mental Health, 2017).

Businesses, thus, reap the benefits of investing in the working environment and employee engagement by a variety of productivity outcomes. A number of studies across countries and various industries suggest that job and workplace characteristics such as task variety, method control, and timing control, as well as training opportunities, result in increased value added per employee, and increased labour productivity (Wood and de Menezes, 2008[38]; Birdi et al., 2008[40]; Macduffie, 1995[41]). Similarly, employees' job satisfaction is closely associated with labour productivity (Bryson, Forth and Stokes, 2017[42]). Specifically in manufacturing, a 20% increase in job satisfaction – i.e. a one-point increase on a scale from 1 to 6 – was found to increase value added per hours worked by 3.6% (Böckerman and Ilmakunnas, 2012[43]). Another determinant of productivity is employee engagement. Businesses or business and work units where employees are highly engaged, score better in various productivity measures such as the defect rate, production volume,

labour cost to budget and cross-sells (Rayton, Dodge and D'Analeze, 2012[18]). A Gallup report also finds a 28 percentage-point gap in shrinkage – the dollar amount of unaccounted-for lost merchandise, which could be the result of employee theft, customer theft or lost merchandise – between business units placed at the top-quarter of employee engagement scores and those placed at the bottom-quarter (Harter et al., 2016[23]).

Businesses with a high quality work environment and those committed to improving it, on average, have a more engaged work force but also superior service and product quality, with abundant evidence supporting this. Overall, across British workplaces where employees are highly satisfied with pay, sense of achievement, scope for using initiative, influence over the job, opportunity to develop skills, job security, and involvement in decision making perform better in terms of the quality of service products (Bryson, Forth and Stokes, 2017[42]). Similarly, within the National Health Services, health workforce involvement facilitated through quality improvement teams is strongly associated with improved patient outcomes such as patient safety, waiting times for intervention, patient mortality, and hospital readmission (Patterson et al., 2010[44]). Similar workplace practices – such as teamwork, employee involvement, integrating employee suggestions and job rotation – were found to increase product quality in the automotive industry (Macduffie, 1995[41]). Data from 62 automotive assembly plants across the world suggest that plants with such work systems in place have a significantly lower number of defects per 100 vehicles, adjusted to reflect only those defects that can be affected by an assembly plant.

Working conditions and work design that contribute to service and product quality also improves customer satisfaction and loyalty. In general, employee engagement is closely related to customer satisfaction. According to a Gallup study, composite performance, which includes customer loyalty and satisfaction, is higher (at least 0.5 standard deviations from the median) in business units of a company which score higher in an employee engagement index (Harter, Schmidt and Keyes, 2012[39]). A study in the restaurant and hotel industry, similarly, shows that training and autonomy are positively associated with work engagement, which correlates with service climate that in turn correlates with employee performance and customer loyalty (Salanova, Agut and Peiró, 2005[45]). There is also evidence suggesting that companies complying with health and safety regulations, having practices of employee health management, and adopting health promotion programmes report improvements in their external reputation (PricewaterhouseCoopers, 2008[37]).

All productivity outcomes, in turn, translate into higher financial performance. Employee satisfaction with pay, sense of achievement, scope for using initiative, control over the job, opportunity to develop skills, job security, and involvement in decision making is found to increase financial performance of a workplace (Bryson, Forth and Stokes, 2017[42]). Business units and workplaces with highly engaged employees are more profitable (Harter, Schmidt and Keyes, 2012[39]) and perform better in terms of a number of indicators. This includes diluted earnings per share, total shareholder return on a given year, annual net income, one-year operating margin, revenue growth, earnings per share growth, sales versus target, operating savings, and stock gain (Rayton, Dodge and D'Analeze, 2012[18]).

Finally, characteristics of the work environment are not only related to firm productivity and financial performance in the short term but in the long term as well: healthy workplaces live longer. A prospective study of 193 branches of an American bank found branches with negative employee attitudes to be more likely to experience closure in the two-year follow-up period, compared to branches with positive employee attitudes (Bartel et al., 2011[46]). All this suggests that bad jobs are bad for businesses.

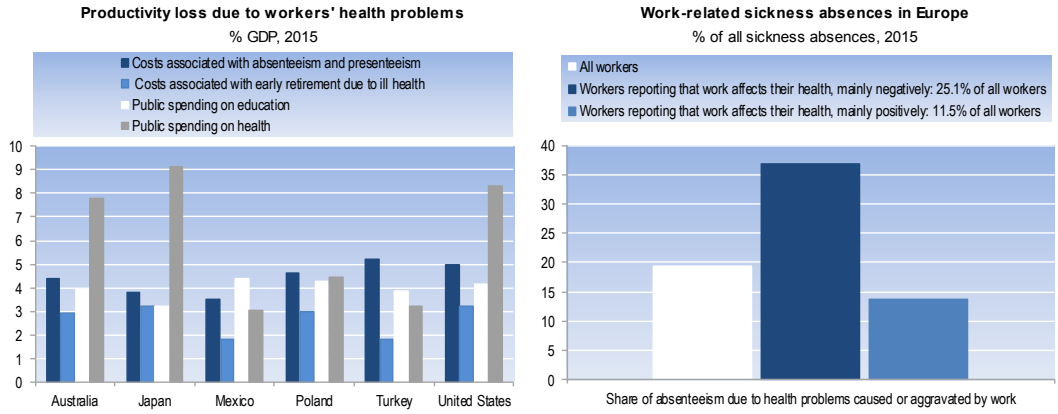
The case for society as a whole

Poor quality jobs are directly linked to poor physical and mental health, which in turn tends to increase absenteeism, presenteeism and early retirements, hence reducing the workforce productive capacity. Measuring the exact cost of poor quality working environment to society is challenging, and to this date, there is no direct cost calculation available at the international level, nor at national levels (with few exceptions such as the UK Health and Safety Executive, which produces cost estimates of work-related injuries and ill health). Nonetheless, epidemiologic data on the disability burden of non-communicable diseases make it possible to estimate productivity losses due to health problems among the working-age population – that is, the reduction in productive capacities resulting from the prevalence and severity of various non-communicable diseases. Such estimates are informative as they give a broad financial picture of the issues at stake, even if only a certain portion of workers' health problems are caused or aggravated by poor working environments. This could be a significant portion, however: according to data from the European Working Conditions Survey, one in five sickness absences are work-related (Figure 2).

Estimates for selected countries suggest that productivity losses from absenteeism and presenteeism could amount to a significant share of a country's GDP (US Chamber of Commerce, 2016[47]): 3.5% in Mexico, 3.8% in Japan, 4.4% in Australia, 4.6% in Poland, 5% in the United States, and 5.2% in Turkey (Figure 2). In addition, productivity losses arising from early retirement due to health problems are estimated to take up almost 2% of GPD in Mexico and Turkey, and around 3% in Australia, Japan and the United States. In total, the reduction in productive capacities alone would represent an opportunity cost of about 5% to 8% of GDP depending on the country. To provide a comparison that gives a sense of the scale of the problem, this is as much as double a country's public spending on primary and secondary education, and in many cases, more than a country's public spending on health care. Adding forgone taxes from people not in employment and spending on social welfare, health care and rehabilitation, the total cost of workers' health problems to society and the economy are enormous.

The case for society to promote a good work environment also has another aspect. The public sector itself is a large employer. As for any private employer the return on investment – i.e. the efficiency of public spending – and the quality of public services could benefit from improving the work environment of public sector workers. A review of HRM practices within UK's National Health Services shows that practices that enhance employee autonomy and promote employee participation result not only in improved job satisfaction and employee health, but also in better health service quality (Patterson et al., 2010[44]). Similarly, employee engagement in educational organizations is positively associated with improved service outcomes such as student ratings, performance ratings, and student achievement scores (Harter et al., 2016[23]). High quality working environments in the public sector translate into better performance and higher productivity. The public sector thus should lead the way in developing employment practices that allow all employees to reach their potential, thereby generating higher returns on public investment. It should also encourage these practices in the private sector through government contracts with businesses with exemplary workplace practices.

Figure 2. The economic costs of workers' health problems are considerable



Note: The reduction in productive capacity due to absenteeism, presenteeism and health-related early retirement is calculated as follows: the impact of morbidity on labour force participation and productivity at work was calculated independently for 13 non-communicable diseases and weighted by the severity of each disease (including cardiovascular diseases, respiratory diseases, musculoskeletal disorders and mental health disorders). The reduction in GDP per person attributable to a particular disease is calculated by multiplying the GDP per person in the labour force with the loss in productivity from a particular disease. The annual loss in GDP from a disease is calculated by multiplying the above figure with the prevalence in the labour force of the respective disease.
Source: US Chamber of Commerce (2016), *Health and Economy, The Impact of Wellness on Productivity in Global Markets*; OECD *Social Spending Database* (2015); OECD calculations using *European Working Conditions Survey* (2015).

To sum up, good jobs can bring considerable societal gains. Promoting better quality work environments in both the private and the public sector could pay a double dividend, by reducing public expenditure and increasing tax revenues:

- Diseases and injuries caused or made worse by work have a huge cost to public finance, in terms of healthcare services and products and social benefit payments.
- As poor quality work environments reduce the number of people in work and the number of days or hours worked by people with health problems, the economy suffers a big loss of production, resulting in forgone taxes for the government.
- The economic benefits of promoting better quality work environments go beyond cost saving: by supporting a highly engaged workforce, quality jobs can increase economic activity and tax revenues as well as service and product quality.

Promoting health and well-being at work and beyond

Good health is important for one's work and life. Research demonstrates that a high-quality work environment can improve health, whereas poor working conditions can have the inverse effect. Policies reflect this insufficiently. Most countries restrict occupational health policy to preventing workplace hazards and, to a much lesser extent, enabling workers with health problems to stay at work. These aspects remain critical but there are important margins for improvement. Addressing psychosocial risks and ensuring the health of a greying workforce will require taking further steps, to promote both healthy workstyles and healthy lifestyles. In the face of changing labour markets, growing inequalities and rising public spending, OECD countries should bring workforce health issues to the forefront of their policy agenda.

The health of the working age population

The workforce is rapidly greying in most OECD countries, mainly due to demographic trends but also to pension reforms that have lengthened working lives. Yet to work longer in productive and rewarding jobs, people must be in good health. Little progress has been made in alleviating the disability burden of diseases over the past two decades (Figure 3). To the contrary: while life expectancy has increased in all countries, the number of years lived with disability (YLDs) has also been growing steadily over the period 1990-2016, mainly driven by population ageing (Vos et al., 2017[48]). On average across OECD countries, YLDs rates due to non-communicable diseases – the primary source of disability – increased by 11.5% among the total population and by 2.3% for prime-age people. The YLDs rate fell by 1.0% among 50-69 year-olds, but this decrease was too small to offset the impact of demographic trends on the prevalence of disability among the workforce. Indeed, the occurrence of disabling diseases increases steeply with age: compared with prime-age workers, YLDs rates are nearly doubled for older workers, who are making up a growing proportion of the working-age population in virtually all countries. If nothing is done to address these major health issues and foster employment prospects for people with health conditions, population ageing will put enormous pressure on younger generations who will be financing social protection.

The good news is that ways exist to reduce the spread of disabling diseases, through disease management interventions, and in many cases, to prevent their occurrence in the first place, through preventive actions. In all OECD countries, mental health conditions and musculoskeletal disorders are the two leading causes of years lost to disability (Figure 3). None of them will inevitably lead to disability if timely and effective interventions are available. Most of them do not prevent people from working, provided some adaptations are made to work tasks and/or workplace design. Hence, there are considerable margins for actions for both health and employment policies to sustain a healthy and productive workforce. Mental and musculoskeletal disorders account for 47.2% of the YLDs rate for older workers in OECD countries, on average, and explain as much as 57,8% of the YLDs rate for prime-age workers. While the two factors play an equal role for prime-age people, musculoskeletal disorders are the predominant cause of years lost to disability among the 50-69 year-olds, and a leading cause of early retirement. These patterns are remarkably similar across OECD countries.

There are also large health disparities across workforce groups in all OECD countries. People with a lower level of income tend to report poorer health than those with higher income. Across the OECD, nearly 80% of people in the highest income quintile report being in good health, compared with just under 60% for people in the lowest income group (OECD, 2017[49]). Life expectancy varies widely by socio-economic status as measured, for instance, by education level (Murtin et al., 2017[50]). On average in the OECD area, a 30-year old university graduate can expect to live around six years longer than a person of the same age with low educational attainment. Disabling chronic diseases are also more frequent among people with lower education levels (James, Devaux and Sassi, 2017[51]; OECD, 2016[52]). A higher education level not only provides the means to improve the socio-economic conditions in which people live and work, but may also promote the adoption of healthier lifestyles and facilitate access to appropriate health care. Breaking the links between health and socio-economic inequalities requires comprehensive policy packages that ensure access for all to prevention measures and quality healthcare. Occupational health services and workplaces have a key role to play in this respect, as part of an integrated and people-centred approach for promoting health at work and beyond.

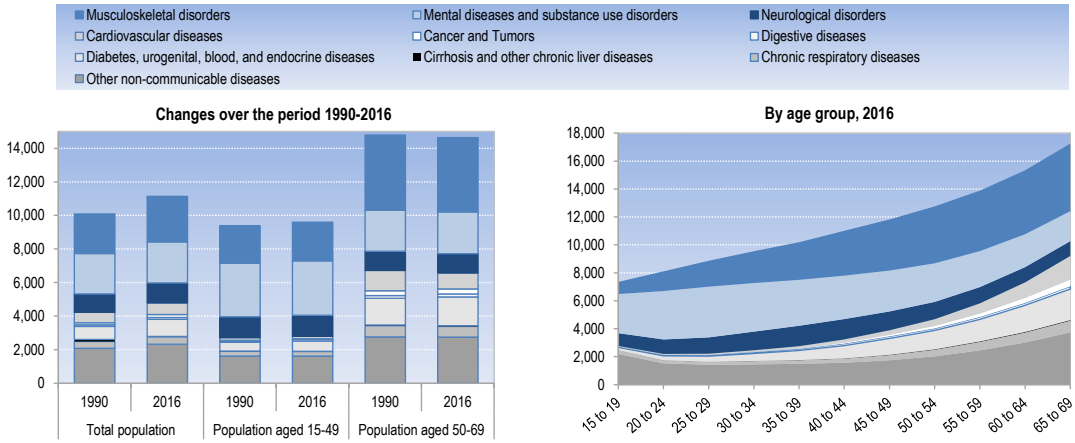
The importance of workplaces for promoting health and well-being

Employers are responsible for ensuring good working conditions and high performance work practices that prevent work itself from becoming a cause of illness. Progress has been made in preventing work accidents and reducing exposure to a number of major risk factors for physical health in the workplace. However, in many countries, identification and prevention are still lagging behind both in regard to psychosocial risks and when major risks arise from the accumulation of several minor ones. The latter is typically the case for musculoskeletal disorders and common mental health conditions.

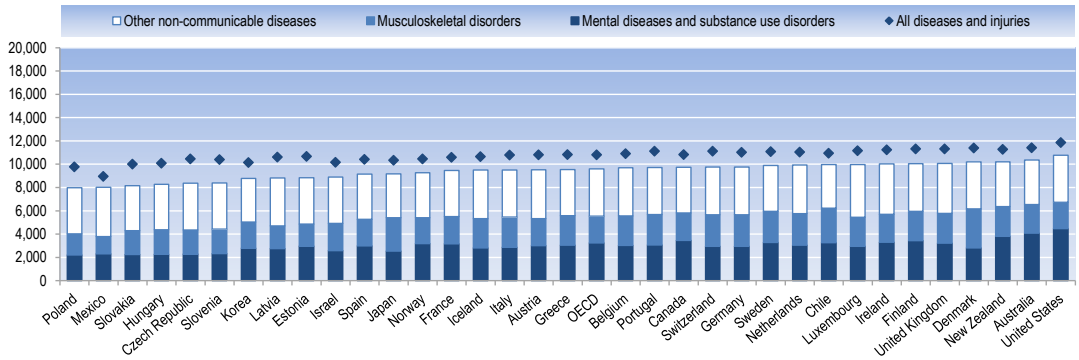
Effective prevention is possible, however, and it can save money. Work-related musculoskeletal disorders develop gradually over the working life, mainly due to the continual repetition of common movements – which are not particularly harmful in the ordinary activities of daily life. This means older workers are most at risk and affected disproportionally. The time dimension also means, however, that effective preventive actions are possible before severe health conditions occur: screening tools exist that allow identifying workers most at risk of developing acute and chronic musculoskeletal conditions (Robinson and George, 2012[53]; Hill et al., 2011[54]). Likewise, work-related mental distress arises from multiple psychosocial risk factors at work. Generally, none of these factors acts separately to cause a mental disease, which occurs as a result of a combination and interaction among them. Mental illness also causes and exacerbates chronic physical illness, pushing up health care costs. Tools exist that allow for the assessment and evaluation of the health and safety risks in the psychosocial work environment (OECD, 2015[55]). As a result, effective preventive actions are possible to implement, just as for work-related musculoskeletal disorders. In both cases, there is growing evidence that preventive measures can relieve symptoms, halt the course of chronicity and reduce associated costs. If well designed and properly implemented, these measures can result in substantial net savings (Cullen et al., 2018[56]; Deloitte, 2017[57]; Shaw et al., 2017[58]; Van Eerd et al., 2016[59]; Hill et al., 2011[54]; Franche et al., 2005[60]).

Figure 3. The health of the workforce

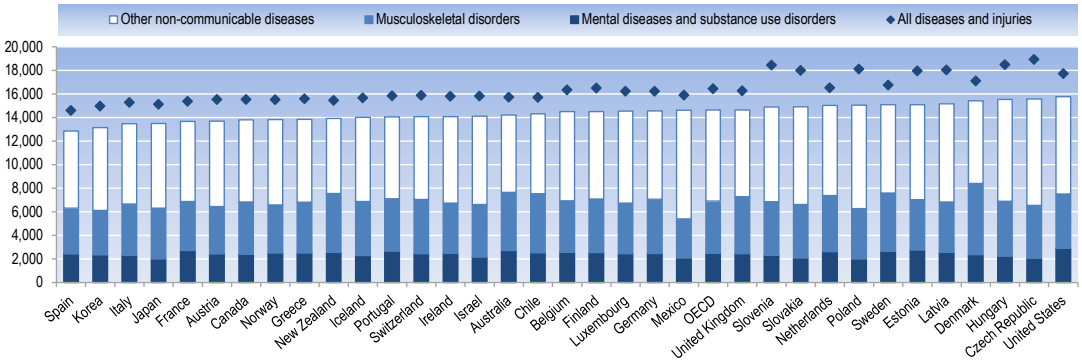
A. Number of years lived with disability (per 100,000 population) due to non-communicable diseases
Average across OECD countries



B. Number of years lived with disability for prime-age people (per 100,000 persons aged 15-49), 2016



C. Number of years lived with disability for older people (per 100,000 persons aged 50-69), 2016



Note: Years lived with disability are estimated as the product of prevalence and a disability weight (ranging from zero for perfect health to one for death) for all mutually exclusive sequelae, corrected for comorbidity and aggregated to cause level (from 328 diseases and 2982 sequelae at the disaggregated level).
Source: Global Burden of Disease Collaborative Network. *Global Burden of Disease Study* Results (GBD 2016), Institute for Health Metrics and Evaluation (IHME), Seattle, United States, 2017. Available from http://ghdx.healthdata.org/gbd-results-tool

Prevention should not be limited to work-related risk factors. First, not all risk factors behind the development of musculoskeletal disorders or mental health conditions are related to work. As these risks are mutually reinforcing and can even nurture each other, prevention programmes should address them all to be effective. For instance, overweight and obesity are important risk factors for musculoskeletal disorders, while regular physical activity helps prevent or delay disease onset for people with repetitive work tasks. Likewise, life events – such as divorce or separation – can have a profound impact on mental well-being, which in turn may render the person more vulnerable to various work stressors. Second, irrespective of the precise nature of risk factors (be they work-related or not), workplaces provide a unique setting to reach out to individuals at potential health risk including people with low health literacy who often need the most support but receive the least. Moreover, employers have access to individuals at an age when interventions can still change their long-term health trajectory (Byrne et al., 2016[61]). In particular, a comprehensive package of measures is necessary to effectively halt the epidemic and decrease the prevalence of overweight and obesity, two major risk factors for many diseases and causes of death. Across the OECD, 54% of the adult population is overweight, including 19% who are obese (OECD, 2017[62]). Workplaces constitute a key channel through which awareness campaigns can be disseminated and preventative actions implemented effectively (Box 3).

Comprehensive prevention campaigns at the workplace can reduce health inequalities. Not only are people in lower socio-economic groups more likely to work in physically demanding jobs and to experience job strain, but they are also more likely to adopt unhealthy behaviours in their daily life, such as poor nutrition habits, lack of exercise, smoking and alcohol abuse. Broad health promotion campaigns, however, often fail to reach the most disadvantaged socio-economic groups. Inequalities exist even when screening services are provided free of charge: people with low level of education or low income are less likely to take part in screening programmes for cancer and other health problems. There are also various non-financial barriers such as lack of awareness of potential benefits, waiting times and distance to travel that also need to be addressed to promote a more equal use of preventive and early-diagnosis services (Devaux and de Looper, 2012[63]). Workplace interventions can help overcome these obstacles, at least in part, as they usually take place during working hours and because they are initiated and supported by a third party, namely the employer, which may strengthen incentives to participate. These prevention policies might not only improve the health of vulnerable population groups, but also reduce sick leave and disability benefit claims, and help people remain in the labour market (Devaux and Sassi, 2015[64]).

A strong culture of prevention paves the way for better integration of people with health conditions or disability into employment. Unwell people should receive adequate support to maintain their job and progress in the workplace. This requires not only health issues *per se* to be handled properly by effective healthcare services with a strong work focus, but also a change in the work environment. This could mean improving workstation ergonomics, adjusting working hours, adapting job duties or reviewing management practices, on a temporary basis or a more permanent one according to individual needs. Workplace support may also consist in facilitating access to adequate healthcare services, notably for workers with low health literacy. Both the employer and the affected worker should have a good understanding of health issues at stake and possess the coping skills and problem-solving abilities necessary to find the right person-job fit, for mutual benefits. Prevention policies facilitate this process, by raising awareness, improving health literacy and developing knowhow among employers and workers. For instance, workplace supports

that are needed to prevent the onset of mental illnesses or musculoskeletal disorders do not differ much from what a worker will need in the early stages of such diseases. To sum up, promoting healthier and more inclusive workplaces require, first and foremost, a stronger culture of health in the world of work.

Box 3. Workplace wellness programmes in the United States

In the United States, employers are often responsible for the healthcare of their employees. Therefore, they have strong financial incentives to invest in comprehensive health and well-being programmes that address both behavioural and occupational risk factors. Accordingly, workplace wellness is a $6 billion dollar industry in the United States. Half of all employers with at least 50 employees offer programmes, and nearly half of those without a programme intend to introduce one. The main rationales for workplace wellness programmes include: improving the health and well-being of employees, increasing their productivity, reducing their risk of costly chronic diseases, and improving control of chronic conditions.

Employers' wellness programmes generally have two components: a lifestyle management programme and a disease management programme. The former focuses on employees with behavioural health risks, such as smoking and obesity, and supports them in reducing those risks and preventing the development of chronic conditions. In contrast, disease management is designed to help employees who already have a chronic disease. The goal is to help these employees take better care of themselves – for example, by reminding them to take their prescribed medications or communicating gaps in care, such as missed lab tests, to their physicians.

Compelling evidence exists that wellness programmes work and prevention pays off, when done well and in the right ways. Return-on-investment (ROI) calculations bear this out. For instance, research by RAND Corporation found an average ROI of 1.5, that is, a return of $1.5 for every dollar that the employer invested in the programme (Mattke et al., 2013[65]; Mattke et al., 2014[66]). The study also shows that ROIs for the individual components differ strikingly, with a ratio of 3.8 for disease management but only 0.5 for lifestyle management. Nonetheless, the lifestyle management programme significantly reduces absenteeism, albeit not enough to make the programme pay off financially. However, the benefits are higher for workers and society as a whole than they are for the current employer. Not everyone with a health risk will develop a disease, and it may take a long time before a risk factor leads to the development of a costly disease. Therefore, the immediate pay-off of lifestyle management programmes is lower than their long-term benefits.

Source: adapted from Mattke et al. (2014).

Helping employers to help at-risk population groups

Employers have to address occupational risks and should improve the person-job fit where necessary, while workplaces can also be a strong vehicle for promoting healthier lifestyles and better access to adequate treatments. Yet, employers need effective support to fulfil their role well. Getting this right often requires technical expertise and solid knowledge in the field of health and safety that cannot be expected from employers. Moreover, healthcare services themselves must be work-oriented to be effective in preventing work disability. Usually, neither employers nor general practitioners have the broad range of competencies necessary to set up effective workplace interventions without a third party connecting them. This is why effective providers of occupational health services with proper expertise and knowhow on both health and workplace aspects are critical. As Society of Occupational Medicine notes, "occupational health doctors and nurses have unique training, expertise and perspective to understand the link between health and work; as well as how to help injured, ill and ageing workers remain productive and at work" (Nicholson, 2017[67]).

National approaches vary widely across OECD countries in terms of the quantity and quality of support services that employers can get from public authorities. There are also large international differences with respect to the scope of legal provisions in force and the incentive structure for employers to invest in health and well-being programmes. The private sector can also be very active in providing audit and consultancy services for companies willing to promote health at work, notably in countries where public provisions are limited. While in Scandinavian countries public agencies in charge of occupational health offer a wide range of support services for employers (backed up with strong legal obligations), the health of the workforce is merely a private matter in countries such as the United Sates where employers have strong financial incentives to invest in health promotion programmes. In other countries, such as France, Spain or Italy, employers' incentives are weaker, yet occupational health remains a Cinderella area of public policy, at the frontier of two broad areas: general health policy and employment policy. As a result, occupational health policies often fall outside the core competencies and key priorities in both fields.

Reducing the spread of disabling diseases among the workforce requires taking a step further in developing a sound knowledge base for effective workplace interventions, as well as quality standards for providers irrespective of whether they are public or private. Research on work disability prevention has taken a leap forward and from being a component of disease outcomes studies, it has become a separate and growing research discipline with its own specific factors, measures and interventions (Pransky, Loisel and Anema, 2011[68]). In part, this is due to recognition that the causes of work disability are multiple, complex and often distinct from associated health conditions and treatments, as they include not only individual factors, but also environmental and societal aspects.

Work disability creates an important personal, economic and social burden that is often preventable. For example, cognitive behavioural therapy programmes focused on work-relevant solutions for mental health conditions are consistently found to reduce absence from work and costs associated with work disability, as well as to improve work performance of the affected person (Cullen et al., 2018[56]). Interestingly, there is also robust evidence indicating that traditional cognitive behavioural therapies alone have no effect on reducing lost time from work. As for musculoskeletal disorders, lost time associated with work disability can be reduced by graded activity programmes, which are also found to be more effective than usual care in this respect. These programmes include exercises imitating work tasks that were difficult and painful, with a view to emphasising

that it is safe to be physically active despite pain, so that the amount of exercise can be increased gradually in agreement with the worker (Cullen et al., 2018[56]). Resistance exercise programmes, which strengthen the musculoskeletal system, are another example of workplace interventions – supported by relatively strong evidence – that help prevent and manage disorders and symptoms (Van Eerd et al., 2016[59]). Beyond such specific examples, the bulk of empirical studies on work disability prevention underscore the diversity of intervention types and the lack of quality evidence to support effectiveness in many cases. In large part, this diversity reflects the variety of potential hazards and diseases, that of work patterns and equipment designs, as well as the practical challenges of trying to design, implement and evaluate policies, programmes and practices. Additional evaluation studies are needed to build scientific evidence on the effectiveness of various intervention types in reducing health risks and associated costs. Evidence-based recommendations and practical guidelines are necessary for businesses and organisations to understand the impact of their employment practices and to take actions when health and well-being are at risk, as well as for general practitioners to adopt a more work-oriented approach to health care.

Two broad conclusions emerge from the empirical literature on workplace health and well-being programmes. First, effective programmes have several components that cover three main intervention areas:

- Health-focused interventions. These interventions facilitate the delivery of health services to workers who have or are about to develop health conditions, either in the workplace or in settings linked to the workplace (e.g. visits to healthcare providers initiated by the employer/workplace).
- Work modification interventions. These interventions alter the organisation of work or introduce modified working conditions (e.g. modified job duties, modified working hours, supernumerary replacements or ergonomic adjustments).
- Service coordination interventions. These interventions are designed to better coordinate the delivery of and access to services to assist workers at work. Coordination involves improving communication in the workplace and between the workplace and the healthcare providers (e.g. case management, education and training, or development of return-to-work plans when necessary).

Second, one size does not fill all: effective programmes are tailored to the company's work environment, work culture and business objectives. This requires a three-stage process that involves:

- A conception phase, which elicits the case for intervention in the work context, clarifies objectives, identifies what should be done and how objectives can be achieved effectively. This conception phase is essential to ensuring adequate targeting, effective participation and appropriate timeframes for interventions, which are key conditions for success.
- An implementation phase, which should involve and coordinate all relevant stakeholders: workers, management at all levels, health practitioners and benefit administrators where relevant, as well as trade union's health and safety representatives where present. This is important to facilitate user buy-in and to build a culture of health in workplaces.
- An evaluation phase, which should be defined upfront in order to collect relevant information throughout the implementation process in order to make fine-tuning

adjustments, if necessary. While the primary focus should be on health and well-being outcomes for employees, work outcomes (e.g. absenteeism, presenteeism, engagement) and financial aspects (e.g. cost-benefit analysis) are also critical aspects to be considered.

The accessibility and quality of occupational health services are strong determinants of employers' incentive and ability to promote health at the workplace. This is especially important for SMEs that often are not willing to invest in well-being and health promotion programmes, or simply cannot afford to do so in a competitive market. Investing in the training and employment of occupational health specialist thus helps protect and promote health, prevent work-related illnesses, and promote return to work after illness. Developing a nationally recognised system of quality standards and formal accreditation for providers of health and well-being services may facilitate user buy-in and foster the implementation of workplace programmes by raising the profile of issues related to occupational health and work disability prevention. Furthermore, just as for providers of employment services in many OECD countries, health and safety practitioners should be evaluated on a regular basis to secure return on investment for employers and boost firms' incentives to invest. For instance, such an evidence-based approach was adopted in the United States for the Centers of Occupational Health and Education (COHEs) in Washington State (Stapleton and Christian, 2016[69]; Sung, Lore and Magill, 2017[70]). The COHE model was first implemented and rigorously evaluated as a pilot in western Washington; it was rolled out to the entire state in 2011. COHEs work with medical providers, employers and workers in a community-based programme designed to ensure timely, effective, coordinated services for workers with job-related health conditions. COHEs provide training in best occupational-health practices for medical providers and assistance and financial incentives to implement those practices. They also coordinate care and facilitate communication between key stakeholders. Regular evaluations are conducted which show that the interventions improve medical and return-to-work outcomes, thereby reducing work disability and associated costs. Good outcomes pave the way for broader dissemination: there are ongoing discussions about extending the COHE model to off-the-job injuries and illnesses, as well as implementing similar initiatives in other States.

With the renewed spread of non-standard forms of work, (dependent) self-employment and temporary and casual work arrangements in many OECD countries, the need for credible and far-reaching initiatives to promote health at work has never been so strong. New forms of employment, particularly crowd sourcing, tend to transfer responsibilities for occupational health and safety away from the employer and into the hands of individual workers, who often lack the training and resources to take measures to ensure safe and healthy working conditions. Sometimes, strong competition between workers may result in corners being cut and unnecessary risks being taken while, at the same time, health and safety practitioners as well as labour inspectorates are often not adequately prepared to deal with these new forms of employment. Improving occupational health delivery to support people in non-standard forms of employment or working in small firms will be critical to sustain a healthy albeit greying workforce. Likewise, regulations may need to be adapted and monitoring and control mechanisms strengthened and improved, to include all forms of work.

The future of well-being at work: healthy workstyles and healthy lifestyles for all

While life expectancy has increased in all OECD countries, disability among working-age people is a growing concern. To work longer in productive and rewarding jobs, people must

be in good health. Working conditions play a key role in this regard. For instance, psychosocial risks at work undermine both mental and physical wellbeing, even leading to cardiovascular illnesses. Evidence is clear that job strain is linked with absenteeism and presenteeism.

In all OECD countries, musculoskeletal and mental disorders are the leading causes of sickness absence. Such health problems do not necessarily prevent people from working provided adaptations are made to work tasks and/or workplace design. Hence, there are considerable margins for actions for both health and employment policies to sustain a healthy and productive workforce.

Effective prevention is possible and saves money. Employers are responsible for ensuring good working conditions that prevent work itself from becoming a cause of illness, but both occupational and behavioural risk factors should be addressed. Employers need guidance and expertise to help their employees and to make a positive change. The availability and quality of occupational health services are central to creating adequate workplace cultures and successfully implementing health-aware workplace practices.

Key policy levers to promote workplace cultures and practices conducive of healthier workstyles and/or healthier lifestyles include:

- Rigorous health risk assessment and monitoring;
- Health and well-being promotion campaigns and prevention initiatives;
- Effective disease management programmes;
- Well-designed sickness absence and return-to-work policies;
- Robust evidence on what works and what does not to draw practical, evidence-based, recommendations and guidelines for the key actors on the ground.

Striking a healthy work-life balance, at all ages

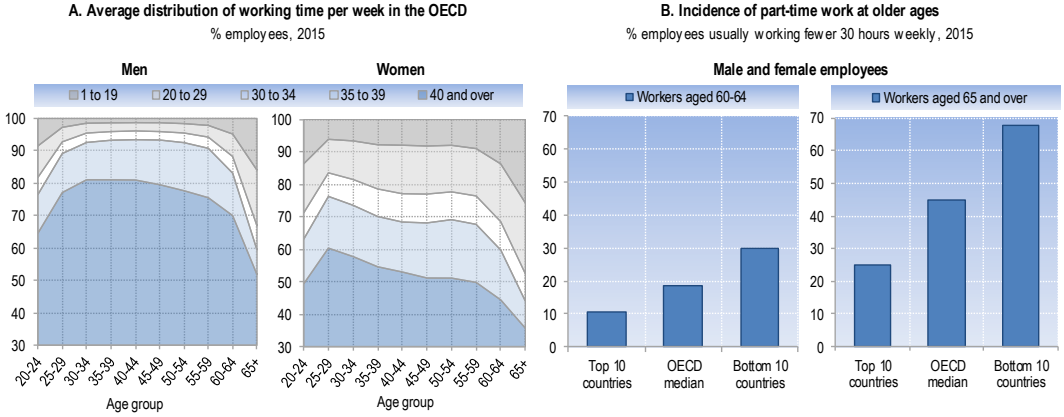
A good job is one that also allows people to live a good life. Life may not allow a uniform way of working all the time. People are diverse and their strengths and needs will differ over the life cycle: entry-level workers may have more up-to-date skills and be able to carry out more physically demanding work, mid-career workers may focus more on children, and older workers may have more experience and maturity but additional needs in terms of their working style and rhythm. Failure to address work-life balance issues is likely to contribute to a significant group of employees experiencing stress at home and at work, absenteeism, falling productivity and (for some) triggering early retirement. Conversely, a focus on work-life balance can help to mobilise underutilised labour resources and bring out new motivation in existing workers. Two key determinants of work-life balance are the *duration* and *organisation* of working time. They can be adapted and combined in different ways to fit with changing needs and preferences, for the benefit not only of individuals but of businesses as well (Eurofound, 2016[71]).

How much do people work?

Employers, supported by effective and enforced working time legislation, have the responsibility to prevent working time duration itself from being a cause of health problems by keeping the workload reasonable in the first place. There is considerable evidence to show that working long hours on a regular basis is associated with greater risks of health problems (e.g. workplace injuries, cardiovascular diseases and mental disorders). But while excess hours may entail high costs for workers and their families, the relationship between working time length and health is not straightforward (Eurofound, 2017[72]; Bassanini and Caroli, 2014[73]). Many factors can have a mediating or moderating effect. For example, age is a potential mediator, as the negative effect of long hours on health tends to increase as people grow older. Work content and working conditions also play a crucial role. Unsurprisingly, the health impact of long hours is greater for jobs that require more attention (such as driving) or repetitive work. This is also true of jobs that are physically demanding, in part because people are at greater risks of workplace accidents and injuries when they have to work long hours. The ergonomics of the workstation or other factors such as noise level, high/low temperatures, vibration, and inadequate lighting are important mediators as well. Finally, beyond the role of work tasks and related contextual factors, what matters is whether individuals have no choice but to work long hours, or whether they are free to choose their work schedule. As a matter of fact, the bulk of evidence on the negative health impact of excess hours is based on situations where workers have essentially no control (no choice) over the amount of work they provide (Bassanini and Caroli, 2014[73]).

People should be given the opportunity to work part-time if they need or wish to do so. In OECD countries, the vast majority of employees usually work at least 40 hours per week, with large differences across countries and socio-demographic groups (Figure 4). While 13% of employees work part-time on average in the OECD, only 5% of prime-age men work fewer than 30 hours per week but nearly 20% of women of childbearing age. The part-time share among women varies greatly across countries, from less than 10% to more than 30%, whereas there are little international differences in the spread of part-time work amongst prime-age men.

Figure 4. Working long hours is frequent, especially among men, and part-time work most widespread among younger and older workers



Source: OECD Employment Database.

For both men and women, part-time work is more widespread at younger and older ages. Strikingly, part-time work is the most prominent feature of late-career work in the OECD, with more than four in ten employees aged 65 and over working fewer than 30 hours per week. Here again, there are large differences across countries: 30% of people aged 60-64 have a part-time job in countries where part-time work is widespread, a proportion that falls to 10% in countries where opportunities for part-time employment are more limited. International differences in the spread of part-time employment at older ages are even larger, with the incidence of part-time work ranging from 25% to as much as 70% amongst employees aged 65 and over.[2]

High-quality part-time jobs could be a boon to ageing societies with shrinking labour resources, since they open employment opportunities to people who, in the absence of such possibility, might be shut out from the labour force. Part-time work is also a means of smoothing out transitions in and out of the labour force, and eventually, a means of lengthening working life. For late-career workers, gradual and flexible retirement schemes can encourage later retirement by enabling people to combine pension and work (Eurofound, 2016[74]). This option can be particularly useful for those who have been in arduous jobs for a long time and need to reduce hours to carry on working, but cannot afford to do so without an extra source of income. More generally, part-time work should not lead to a dead end since it widely comes at the price of reduced earnings and often curtailed career prospects. Hence the importance of insuring that those who want to return to full-time employment have the opportunity to do so.

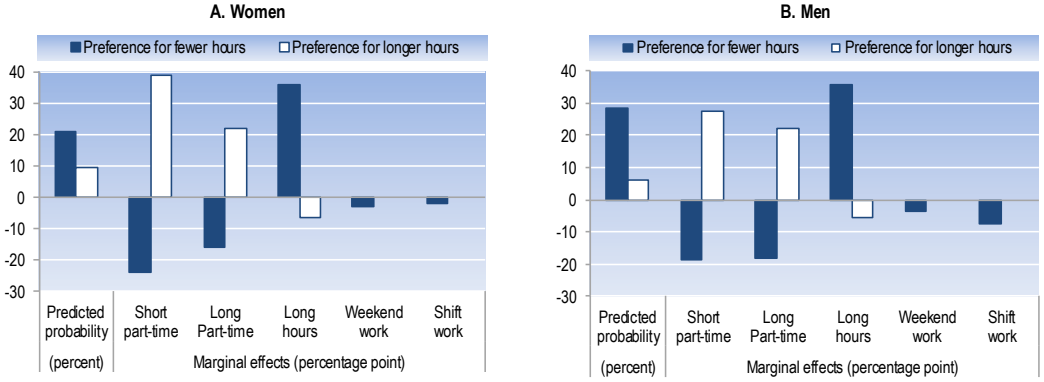
Beyond the amount of work per se, the gap between actual and desired work hours is also a key determinant of job satisfaction and worker well-being. There are still margins for improvement in terms of better matching actual working time schedules with individual preferences (Figure 5). More than one in four male employees in Europe report that they would work fewer hours – and nearly one in five amongst female employees – if they could

[2] These large variations in working time patterns across countries and socio-demographic groups suggest that in countries where the spread of part-time work is limited and/or those where full-time jobs are usually associated with long work hours and poor work-life balance, there is substantial scope for action to promote more inclusive and health-friendly workplaces as well as more efficient use of human resources.

choose freely, taking into account the need to earn a living (Eurofound, 2017[72]). Comparatively, relatively few people would prefer to work longer hours: 10% of female employees and only 5% of male employees.

Figure 5. Many full-time employees in Europe would prefer to work fewer hours

Predicted probability and estimated marginal effects of actual working time preference patterns, 2015



Note: Working time preferences are captured by the question "Provided that you could make a free choice regarding your working hours and taking into account the need to earn a living, how many hours per week would you prefer to work at present?"
Interpretation: 20.8% of female employees would prefer to work fewer hours and 9.2% of them would like to work longer hours. The likelihood to opt for fewer working hours is 36 percentage points higher for women working long hours compared to their counterparts with normal working time, but 24 percentage points lower for female part-timers with few hours of work.
Source: Eurofound (2017), *Working time patterns for sustainable work*. Statistical Annex (Tables C13-C14)

However, part-timers are far more likely to report a preference for longer working time than full-timers with normal working hours (35 to 42 hours per week). The opposite is true for those working long hours. The study also shows that preference for shorter working time is more widespread amongst employees with young children and older people than it is amongst young or prime-age couples without children (Eurofound, 2017[72]). Other contextual factors such as atypical working hours and low-skilled work play a less important role in regard to working-time preferences, in part reflecting the fact that the employees concerned might not afford to trade off income for free time even though their working conditions are difficult. Overall, better matching actual working time durations with preferences may not affect dramatically the total amount of hours worked at the intensive margin, as some people will reduce their hours while others will opt for an increase. At the extensive margin, however, ensuring a better match between actual and desired work hours may strengthen labour market attachment of those with caring responsibilities and older workers.

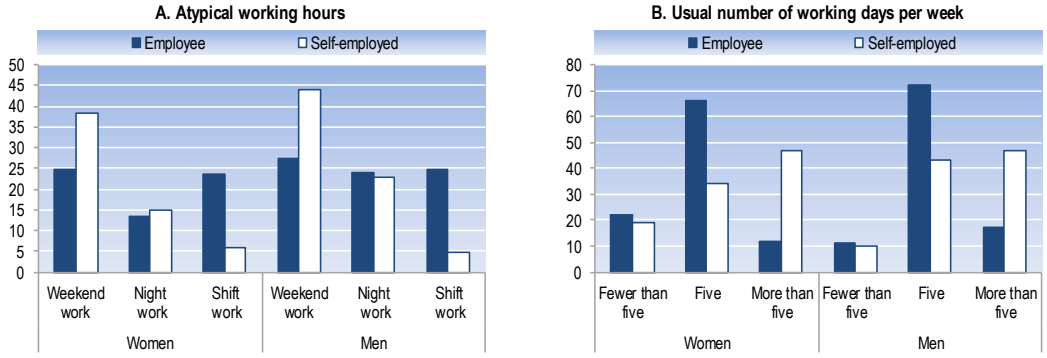
When and where do people work?

Also of key importance is working time organisation. How working hours and rest periods are spread over days and weeks, as well as night, shift and weekend work, affect work-life balance and may affect health. Atypical working hours are widespread (Figure 6): for instance, nearly one in four employees in Europe report to work shifts, nights or on weekends, with night work being less frequent for female employees than for their male counterparts. In fact, in Europe atypical work is as common as part-time work. Strikingly, more than 40% of self-employed people work on Saturday or Sunday, as half of them

usually works more than five days a week. In contrast, the workweek does not exceed five days for the vast majority of employees.

Figure 6. Atypical working hours are widespread in Europe

Percentage of employees and of self-employed persons, 2015



Source: Eurofound (2017), *Working time patterns for sustainable work*. Statistical Annex (Tables C15a-b)

Atypical working hours are a double-edged sword (Eurofound, 2012[75]). On the one hand, night or weekend work may provide opportunities for reconciling work and caring responsibilities, in particular for the low skilled who cannot afford to work part-time as atypical working hours often give rise to additional pay. On the other hand, a large body of evidence suggests that atypical working hours over prolonged periods are detrimental to health. Most research and evaluation studies have focused on shift and night work, linking atypical work schedules to a wide range of health risks. From sleep disorders and anxiety to burnout and depressive syndromes, and from metabolic disorders and gastrointestinal pathologies to cardiovascular diseases, the list of health complaints related to atypical work patterns is long and encompasses major risks for both physical and mental health (Anses, 2016[76]; Wisetborisut et al., 2014[77]). Further detrimental impacts may also result from reduced cognitive performance leading to an increase in accidents at work, particularly for night workers.[3] In brief, providing working time flexibility for workers to reconcile work and life through atypical work schedules is not a panacea. The risk of adverse health effects may be lower when night or shift work is a deliberate and informed choice, but atypical work should be backed up with adequate rest periods and close health monitoring through regular check-ups.

The good news is that, even though modern economy requires work to continue 24 hours and 7 days and in multiple shifts, the adverse effects of atypical work schedules can be reduced to a minimum with the right interventions. Empirical studies provide robust evidence on three main changes that employers can adopt to improve the well-being and work-life balance of shift workers: switching from slow to fast rotation, from backward to forward rotation, and to self-scheduling.

- First, studies show that switching from slow rotation (*i.e.* six or seven consecutive shifts of the same type) to fast rotation (*i.e.* a maximum of three to four shifts of the same type) resulted in favourable outcomes in the intervention group, such as

[3] As an aside, several studies highlight the fact that the nuclear accidents at Three Mile Island in 1979 and Chernobyl in 1986, as well as the Bhopal disaster in 1984, happened at night (Eurofound, 2017[72]).

reduction in fatigue, sleep disturbances, and appetite disturbances (Hornberger and Knauth, 1998[78]), and in sleep difficulties, absences, headaches, digestive disorders, high blood pressure, anxiety, and nervousness (Williamson, Gower and Clarke, 1994[79]; Williamson and Sanderson, 1986[80]).

- Second, changing from backward (night-afternoon-morning) to forward (morning-afternoon-night) shift rotation is associated with improved physical health outcomes during the intervention period, such as some coronary risk factors, mean systolic blood pressure, and mean sleep quality and duration (Orth-Gomér, 1983[81]).
- Finally, switching to self-scheduling, which enables shift workers to have control over which shifts they work, when they start work, or when their rest days occur, is associated with improvements in health, work-life balance, and organizational effectiveness (Costa, Cesana and Kogi, 1990[82]; Gauderer and Knauth, 2004[83]; Wortley and Grierson-Hill, 2003[84]).

Notwithstanding these findings, the best way to strike a better and healthier work-life balance is to allow people to take paid time off inside normal working hours of a full-time job. Paid leave and flexible working time arrangements (FWTAs) are the two main categories of workplace practices that allow workers to spread annual working hours across months, weeks or days. Paid leave includes access to family leave, sick leave, and other leave (e.g. paid leave for family illness) that allow workers to take time off to care for themselves or a family member. Paid leaves are particularly important for low-wage workers who may not afford to take unpaid leave (Rossin-Slater, Ruhm and Waldfogel, 2013[85]). The adequate length of leave, whether it is granted on a full-time or part-time basis, by whom it is paid, and at what rate, will differ according to the type of paid leave and in line with social preferences underpinning national safety nets. Their potential benefits for society and the economy, however, are similar in nature.

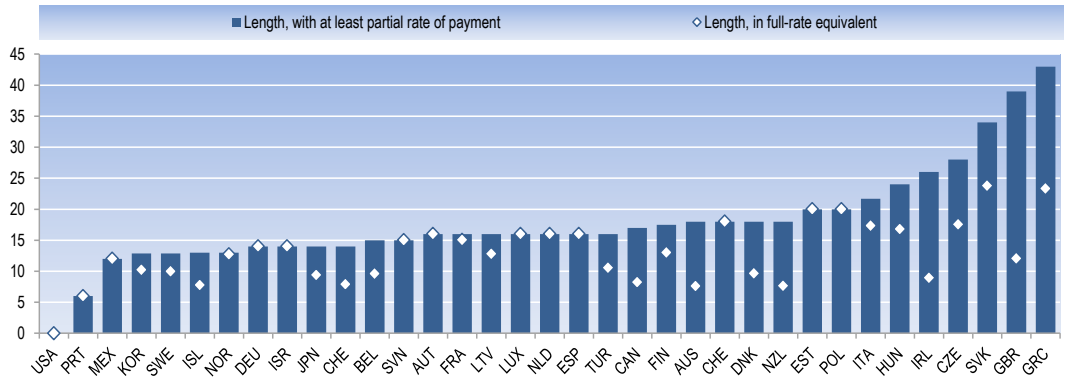
Beyond their positive impact on health and well-being, well-designed and well-targeted paid leaves can nurture work engagement and strengthen labour market attachment. For instance, not only is maternity leave good for maternal and child health but also for female employment outcomes, while paternity leave can help promote gender equality (OECD, 2017[86]). Likewise, paid sick leave contributes to faster recovery and creates a healthier work environment by encouraging workers to stay home when they are sick, making them less likely to infect others and cause further productivity losses (Drago and Miller, 2010[87]).[4] Evidence also suggests that, overall, paid sick days do not lower business profits: what is costly for employers is workers being seek in the first place, at home or on the job (Appelbaum and Milkman, 2011[88]). Going a step further, long-term sickness benefits that allow a gradual return to work, are essential to helping people with more severe health conditions keep a foothold in the labour market and achieve better living conditions (Kausto et al., 2014[89]). These schemes also help save public spending on long-term disability benefits and avoid large waste of labour resources.

[4] For example, a recent study of workers in the United States, which does not guarantee paid sick leave, found that workers without paid sick leave were three times more likely to both delay medical care and go without needed care altogether compared to those with paid sick leave (World Policy Analysis Center, 2016[90]).

Despite the importance of paid leaves for work-life balance, and ultimately health and various employment outcomes, there are large differences across OECD countries in access to those schemes, with still a number of countries lagging behind in granting statutory rights to maternity leave or sick leave. All OECD countries except the United States have national schemes that offer mothers a statutory right to paid maternity leave, usually for between 15 and 20 weeks (Figure 7).[5] Payment rates, however, vary widely across countries (from 30% to 100%), and in full-rate equivalent, international differences in the length of maternity leave are even larger, ranging from five to 20 weeks in most countries. Furthermore, only half of all OECD countries also provide fathers with an entitlement to paid paternity leave, usually for one or two weeks (OECD, 2017[86]).

Figure 7. Paid maternity leave entitlements vary widely in OECD countries

Weeks of paid maternity leave, 2016



Source: OECD Family database.

As for paid sick leave, virtually all OECD countries guarantee paid leave for personal illness, with the notable exception of Korea and the United States (World Policy Analysis Center, 2016[90]). Paid sick leave is usually provided for at least six months (and most often for 12 months or more), in accordance with medical evidence on treatment and recovery times which suggests that six months of leave is important to cover severe illness (Raub et al., 2018[91]). Payment rates usually amount to at least 60% of current earnings, and are even higher in many countries, up to 100% of earnings. In most cases, employers are liable for payment of these costs during the first week or weeks of sick leave, while thereafter the costs are covered by a public system – e.g. through a separate sickness insurance, or as part of health insurance or via employment insurance. However, cash sickness benefit systems vary greatly across OECD countries.

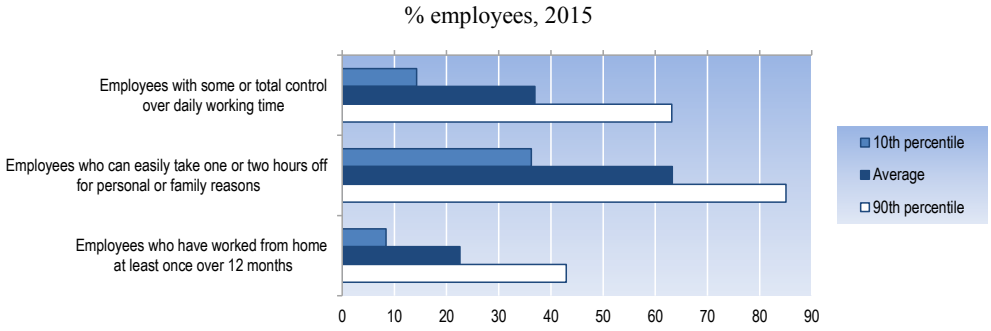
Flexible working time arrangements (FWTAs) encompass a range of practices from flexitime options (such as starting and finishing work at different times) to more advanced options, e.g. working "compressed" weeks (working an extra hour each day to get Friday afternoon off) or using "time accounts" to spread working hours across weeks or months. This also includes working from home or teleworking. A body of research finds that these practices benefit individuals by reducing stress at work and at home, thereby reducing absenteeism (US-CEA, 2015[92]). They also benefit employers by improving their ability to recruit and retain talent, lowering costly worker turnover (loss of specific skills and human

[5] In the United States, a few individual States provide mothers with an entitlement to paid leave benefits through either sick-leave insurance or specific family leave programmes.

capital) and helping project a family-friendly public image (Bloom, Kretschmer and Van Reenen, 2011[93]; Den Dulk et al., 2013[94]). Workplace flexibility is also found to increase productivity, although changing workplace practices can generate short-term costs (Beauregard and Henry, 2009[95]).

There are large differences across countries in access to FWTAs (Figure 8). For instance, only one-third of employees in Europe enjoy some flexible work options, but the proportion is twice as high in countries where FTWAs are widespread. However, over 60% of employees in Europe can easily take one or two hours off during the working day to attend to personal or family matters, though shares again vary by country, from one in three to eight in ten employees. In addition, around one in five employees in Europe work from home on a regular or occasional basis, once again with large variations across countries (from nearly 10% to over 40%). FWTAs are widespread in the United States, where more than half of employees report having some flexibility in when they work while only one in five report flexibility in where they work (US-CEA, 2015[92]).

Figure 8. Flexible working time arrangements vary considerably across Europe



Source: Thévenon, Bouzol-Broitman and Guez (2018), Figure 2.

In addition to its benefits for work-life balance and well-being, locational flexibility – autonomy in deciding where to perform the job – might have benefits for productivity, although the findings are inconclusive. Employees able to telework or work from home are, on average, more satisfied with their job (Baruch, 2000[96]); more engaged at work because working from home enables them to organize their work more efficiently (Ten Brummelhuis et al., 2012[97]); and display higher innovative performance on the organizational level (Martínez-Sánchez et al., 2008[98]) and higher creativity (Dutcher, 2012[99]). Other studies find that teleworking causes negative feelings such as isolation and has a negative productivity effect on dull tasks (Dutcher, 2012[99]), and reduces knowledge transfer between employees (Taskin and Bridoux, 2010[100]). The divergence in the results indicate that providing employees with flexibility on where to perform the job could have potential benefits for firm productivity, but teleworking arrangements need to be carefully designed to meet the needs of workers and employers. If working from home or teleworking is enforced on employees as a strategy of cost saving for office space, it may prevent workers from establishing organizational identity and social capital, and be counter-productive. In contrast, if flexible working location is offered as a resource, it helps employees not only manage their care responsibilities, but also work more effectively and creatively. Employers, thus, should assess needs of their employees and offer teleworking arrangements that are adapted accordingly.

In countries where FWTAs are common practice, such as the Netherlands and the Nordic countries, parents are more likely to use them than employees without dependent children (Thévenon, Bouzol-Broitman and Guez, 2018[101]). Generally, however, the use of flexible working arrangements is not related to the presence of children in a household. Rather, access to FWTAs is unevenly spread across occupations and jobs as it is often related to the extent to which new ICTs are being used. The latter is biased against low-skilled and older workers, thereby curtailing their access to FWTAs. Therefore, it is of key importance to improve the old recipes for better reconciliation between work and life, notably part-time work. Otherwise, inequalities may widen with the emergence of two parallel regimes of working-time flexibility: a good one for the haves and a bad one for the not-haves. First, people should be able move easily *in but also out* of part-time work when life circumstances change. Second, adequate income support (*e.g.* in-work benefits, flexible retirement schemes, partial disability schemes) is necessary for the most vulnerable workers, *i.e.* those who face binding budget constraints and, at the same time, are under severe time constraints or have a reduced work capacity. Otherwise, they are likely to join the ranks of the working poor, or might even leave the workforce altogether. And the consequences spread way beyond: reduced activity among lone parents and large families is the primary cause of child poverty, and in-work poverty nurtures elderly poverty later on.

Additionally, flexible work arrangements may have their own pitfalls that need to be investigated further. Modern communication technologies tend to blur the frontier between work and life thereby leading some to work long hours and lack a disconnection from work. The potential health impacts of such behavioural effects must be closely monitored to prevent any harm on worker's productivity. Some firms close their premises or restrict access to their networks during evenings and weekends to ensure workers take healthy breaks and can revitalise during leaves. Without, at the very least, a minimal safety-net that governments and/or social partners still have to build in many OECD countries, going too far and too fast to make working time highly flexible could end up being detrimental to workers and firms. Even more so as new ICTs are giving rise to new forms of non-standard jobs that are inadequately or not at all covered by existing regulatory frameworks and social safety nets.

The future of work-life balance: towards a safety-net for flexible workplaces

Most workers in OECD countries work at least five days and 40 hours per week, with large difference across countries and socio-economic groups, and atypical working hours – weekend, night and shift work – are common. Many full-time workers would prefer to work shorter hours, if this would not harm their career opportunities, and some part-time work that is of low quality and a dead end in terms of career progression is clearly involuntary. This gap between actual and desired work hours is a key determinant of job satisfaction and well-being and, thus, also productivity.

Atypical working hours are also a double-edged sword as night or weekend work may provide opportunities for reconciling work and caring responsibilities, in particular for low-skilled workers who cannot afford to work part-time, while a large body of evidence suggests that atypical working hours over prolonged periods are detrimental to health.

There are other options, too. Paid leave and FWTAs are the most widespread practices allowing workers to spread annual working hours across months, weeks or days. Paid leave can nurture work engagement and strengthen labour market attachment. Maternity leave, for example, was shown to promote female employment and sick leave was shown to contribute to faster recovery and lower presenteeism. As for FWTAs, working compressed

weeks or using working time accounts were shown to reduce stress at work and at home, thereby reducing absenteeism, to increase productivity and to lower worker turnover. Likewise, teleworking in most cases has been found to increase engagement and creative and innovative work behaviour but not of workers' needs and preferences are disregarded.

Key policy levers to help employees strike a better work-life balance throughout the life course and thereby increase job satisfaction and performance include:

- Paid leaves for mothers and fathers and affordable child and eldercare;
- Paid leaves for sick workers to avoid job loss and skill deprivation;
- Partial disability schemes and flexible retirement schemes to make it possible for everyone to carrying on working
- Adequate income supports to ensure that work remains the best antidote against poverty for the most vulnerable part-timers, *i.e.* the low-paid who cannot carry on working full-time due specific family circumstances;
- Flexible working time arrangements with choice on hours and place of work;
- Close monitoring of "new forms" of work-life balance to build, at the very least, a minimal safety net in line with new ways of working.

Making full use of both hard and soft skills

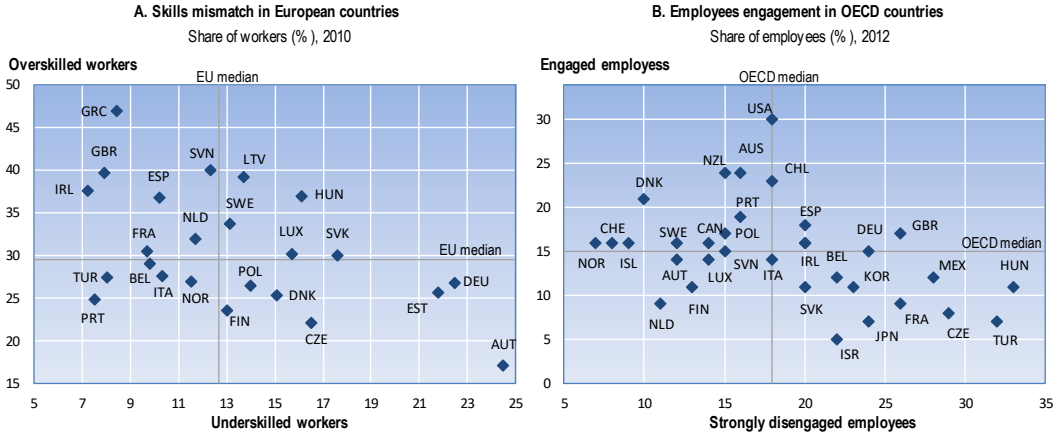
Workers' skills and performance are inextricably linked together. No other single factor influences labour market opportunities, career progression and earnings more than a worker's skills and qualifications. While public policies play a central role in equipping people with the right skills for jobs, how well employers use those skills also matters a great deal for work and life outcomes. What ultimately drives both work performance and job satisfaction is the bundle of skills that people actually use in their job, above and beyond the qualifications that they possess. This bundle includes not only hard skills but also soft skills (*e.g.* contentiousness, openness to experience, or agreeableness), which are equally important for people to live a good life (Almlund et al., 2011[102]). Because those skills are not fully visible, making the most of them is a challenging task for employers. Hard skills evolve throughout careers, so the signalling value of initial education erodes over time. Likewise, no certificate exists for soft skills, which are not directly observable and can only be inferred through behaviours (and performance) at work and beyond. Hence, employers have to provide adequate opportunities and the right incentives, for workers to deploy their full potential in accomplishing their job duties. There is room for improvement in this respect.

Large untapped potential remains

Evidence from the OECD Survey of Adult Skills (PIAAC) shows that how well employers use their workers skills in the workplace varies widely across OECD countries, including countries with similar skills composition of the workforce (OECD, 2016[103]). A large pool of high-skilled workers does not automatically ensure effective use of skills at work. Failure to utilise skills has direct and indirect consequences. It represents a waste of human capital and as such, it is a direct source of productivity losses. It also depreciates or makes obsolete existing skills and damages people's employability if they are not given other opportunities to acquire new competencies. Finally, bad use of skills impairs workers' health and performance indirectly by reducing their mental well-being and altering their behaviour in the workplace and beyond. For instance, over-education or over-skilling is consistently found to be associated with low levels of job satisfaction and work motivation, as well as significant pay penalties (OECD, 2016[103]; Green and Zhuy, 2010[104]; Alfes, Shantz and Van Baalen, 2016[105]).

Public policies merely act on the supply-side to enhance workforce skills; yet many people report being over-skilled for the job they do (Figure 9, Panel A). In most European countries, more than one employee in four falls into this category; and more than one in three in Greece, Hungary, Ireland, Latvia, Netherlands, Slovenia, Spain, Sweden and the United Kingdom. Lacking the necessary skills is much less widespread, at least amongst those who have a job (it remains a major concern, however, among the ranks of the unemployed). Austria seems to be the only country in which being under-skilled is more widespread than being over-skilled, with Germany and Estonia coming close to such a situation. The underuse or misuse of available skills by firms would deserve more attention in policy debates, as it may constitute an important limitation to the effectiveness of supply-side policies, in addition to having a negative impact on individual and organisational outcomes.

Figure 9. Skills mismatch and disengagement from work is a frequent phenomenon



Source: OECD (2016), "Skills shortages and mismatches", in *Getting Skills Right: Assessing and Anticipating Changing Skill Needs*; Gallup (2013), *State of the Global Workplace*.

Skills utilisation is central to the notion of engagement, which is characterised by vigour, dedication and absorption while working, and stands in stark contrast to work boredom or bore-out, which merely results from the absence of meaningful tasks and/or lack of social ties in the workplace. Jobs that entail a greater risk of bore-out are not limited to low-skilled jobs involving simple and repetitive tasks. More generally, this risk arises from work situations that prevent individuals from fulfilling their potential by using their skills, knowledge, and abilities to contribute to their company's development (Cummings, Gao and Thornburg, 2016[106]; Costas and Kärreman, 2016[107]; Loukidou, Loan-Clarke and Daniels, 2009[108]; Mael and Jex, 2015[109]; Harju and Hakanen, 2016[110]). For example, the meaningfulness of work can be lost in excessive bureaucracy or hierarchy, abundance of information, multiplicity of virtual exchanges or lack of real interpersonal relationships. This may happen in many jobs, including high-skilled ones. Even more so with the digitalisation of work.

Engagement and bore-out are inextricably linked to workers' performance and well-being in the workplace (Section 1). While the notion of skills use is usually limited to the bundle of hard skills that workers possess, engagement – or its opposite, bore-out – relates to the use of both hard and soft skills in the workplace, conducive to both professional and personal accomplishment at work. Hence, making good use of hard skills is a necessary condition for boosting engagement and preventing work boredom, but it is in most cases not a sufficient condition.

Evidence from a Survey of Employee Engagement shows large differences in engagement levels across OECD countries. Broadly speaking, the survey measures engagement levels through a set of questions that relate to employees perception of professional and personal accomplishment at work (Gallup, 2017[11]). Only 15% of all employees report being engaged, on average in the OECD, while 18% of them may be at risk of bore-out due to strong disengagement (Figure 9, Panel B). Australia, Denmark and New Zealand are the only countries that perform better than average on both dimensions. On the other end, a significant number of countries display relatively poor performance in terms of both engagement and strong disengagement: the Czech Republic, France, Hungary, Israel, Japan, Korea, Mexico, the Slovak Republic and Turkey. Interestingly, strong disengagement is much less widespread in the four Nordic countries and the Netherlands,

which also have relatively few people in strain jobs but show mixed results with respect to employee engagement. Overall, just as with self-reported measures of skills use at work, Gallup data on work engagement indicate that there is a large untapped potential for labour resources to be better mobilised at the intensive margin. This could be a boon to ageing societies, helping to cope with major demographic trends that constrain the increase in labour resources at the extensive margin.

Soft skills also matter a great deal

Measurement of qualifications and skills essentially captures the combination of knowledge and cognitive abilities that constitute a worker's hard skills. However, it does not adequately reflect non-cognitive abilities, the so-called soft skills, of which personality traits, goals, and individual motivations and preferences are key constituencies (Almlund et al., 2011[102]). Psychologists and sociologists have long been analysing the importance of soft skills. Likewise, the economics of soft skills has gained considerable momentum in recent decades. The economic literature is now populated with strong evidence that soft skills have a major impact on various work and life outcomes. Several taxonomies of soft skills exist, the most widely used being the so-called "Big Five" (Heckman and Kautz, 2012[111]) which includes:

- *Conscientiousness*, as described by "the tendency to be organized, responsible, and hardworking" in the American Psychology Association Dictionary (APAD). Related traits comprise grit, perseverance, delay of gratification, impulse control, striving for achievement, ambition and work ethic.
- *Openness to Experience*, as described in APAD by "the tendency to be open to new aesthetic, cultural, or intellectual experiences".
- *Extraversion*, as described in APAD by "an orientation of one's interests and energies toward the outer world of people and things rather than the inner world of subjective experience; characterized by positive affect and sociability".
- *Agreeableness*, as described in APAD by "the tendency to act in a cooperative, unselfish manner". Related traits include empathy, perspective taking, cooperation and competitiveness.
- *Emotional Stability / Neuroticism*: Emotional stability is described in APAD as "predictability and consistency in emotional reactions, with absence of rapid mood changes", and related traits include locus of control, core self-evaluation, self-esteem, self-efficacy and optimism. Neuroticism is described as "a chronic level of emotional instability and proneness to psychological distress" and is related to mental disorders, including depression and anxiety disorders.

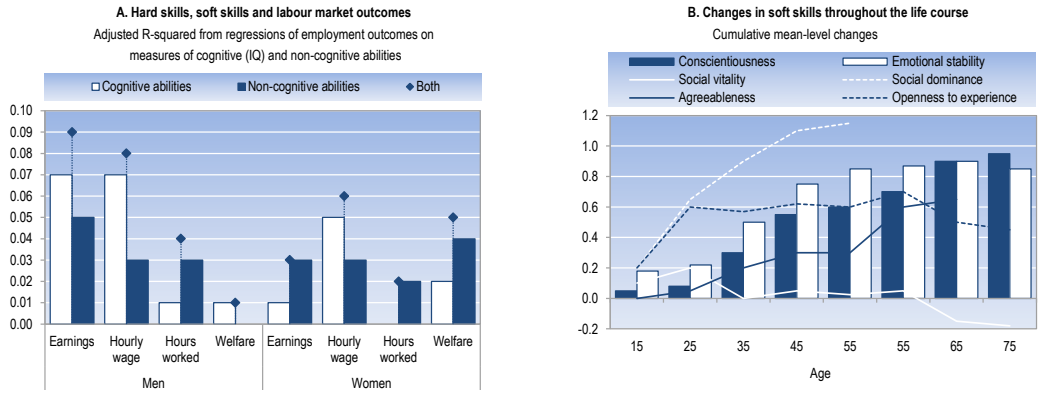
This taxonomy, on its own, sheds light on how important soft skills could be, and through which channels they can influence success in life and work. This is corroborated by numerous empirical studies, which identify and measure hard skills and soft skills as two related but distinct constructs to evaluate their respective importance in shaping social behaviours and labour market outcomes. Soft skills are also important predictors of health trajectories, in part because they reduce behavioural risk factors and foster healthy, active lifestyles. Traits related to Contentiousness, Openness to Experience, and Agreeableness are found to be associated with longer lives, whereas those related to Neuroticism are associated with shorter life spans (Almlund et al., 2011[102]).

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Soft skills are highly valued in the labour market. They affect employability, occupational choices and earnings, not only because they are strong determinants of educational achievements, but also through more direct channels (Heckman, Stixrud and Urzua, 2006[112]). While the magnitude of estimated effects varies across studies, soft skills can be found equally important as cognitive abilities in explaining various labour market outcomes, including employment probabilities, wages and hours worked (Figure 10, Panel A). Strong relationships have also been established between the Big Five and job performance – as measured by performance ratings or other human resource data (Barrick and Mount, 1991[113]). Conscientiousness and Emotional Stability are consistently found to be associated with better performance at work. Interestingly, those skills are more important for people with lower levels of job complexity or education level, whereas cognitive ability is more important at higher levels of job complexity. Other soft skills, such as Openness to Experience and Agreeableness, affect more specific outcomes, such as selection into particular occupations and careers (Almlund et al., 2011[102]).

Soft skills are not set in stone. They are malleable and change over the life cycle (Figure 10, Panel B). Contentiousness, Emotional Stability and Agreeableness increase throughout the life course, whereas Openness to Experience rises early in life and then decreases at old age. The different facets of Extraversion evolve differently as people grow older: social vitality (*e.g.* talkativeness, gregariousness and sociability) decreases slightly, while social dominance (*e.g.* assertiveness, authority) rises sharply early in life and then remains stable. This sheds important light on the employability of older people, and on how they can best contribute to their company's development. While cognitive skills decline with age, older workers have a comparative advantage over their younger counterparts in terms of the soft skills they possess.

Figure 10. The importance of soft skills for labour market outcomes is considerable



Note: Panel A shows the explained variance using: only the measure of cognitive abilities; only the measure of non-cognitive abilities; and using both the measures of cognitive and non-cognitive abilities.
Source: Heckman and Kautz (2012), "Hard evidence on soft skills", *Labour Economics* (Table 2); Almlund et al. (2010), "Personality Psychology and Economics", *Handbook of the Economics of Education* (Figure 1.22).

Given their importance for work and life outcomes, generally much too little attention is paid to soft skills in public and policy debates. All the more so as they are amenable to interventions, to different degrees at different ages. As Heckman and Kautz (2012) point out, "programmes that enhance soft skills have an important place in an effective portfolio of public policies". This also applies to employers, as part of sound management practices and efficient work organisation.

Getting more out of labour resources, for mutual benefits

Organisations have particular functions to accomplish if they are to meet their objectives. Those functions comprise a number of tasks, which are grouped to form jobs undertaken by individuals. Completing those tasks usually requires a bundle of hard skills. Workers are also given a certain degree of discretion over how they carry out work, which requires them to deploy their soft skills, potentially all the Big Five. Job design (*i.e.* job characteristics) is the outcome of this process: on the one hand, the variety of technical tasks a worker has to complete, and on the other hand, the amount of discretion this worker has to do so. Hence, any job requires a mix of hard and soft skills. While soft skills are essential in their own right, making good use of them could also be a means for individuals to fully deploy their hard skills.

The amount of discretion left to the worker in the accomplishment of job duties has been extensively studied in various strands of literature. In particular, the literature on occupational health/psychology highlights the key role of decision latitude, job control, work autonomy, or so-called "job crafting", which are among the strongest predictors of psychological well-being at work (Gallie, 2013[114]). The basic premise is that workers are well placed to fit their job duties with their preferences, motivations and abilities. Hence, job crafting approaches can enhance well-being in the workplace in at least three ways:

- It can help workers cope with a heavy workload and reduce job strain by enabling them to set their own work priorities, adjust their work schedule accordingly, and better balance work and life commitments. Having autonomy, or control over one's job, has been shown to reduce the burnout risk, especially when co-workers and supervisors also play a supporting role (Day, Crown and Ivany, 2017[115]).
- It can help workers cope with the bore-out risk notably when they are over-skilled for the job they do (Harju, Hakanen and Schaufeli, 2016[116]; Alfes, Shantz and Van Baalen, 2016[105]; Wu, Luksyte and Parker, 2015[117]). Job crafting opens opportunities for seeking new tasks or challenges, or for developing social ties in the workplace to break work monotony.
- It can foster personal accomplishment at work and boost engagement by enabling people to make full use of, and benefit from, the bundle of hard and soft skills they possess (Harju, Hakanen and Schaufeli, 2016[116]; Vogt et al., 2016[118]).

How employers can best design jobs has been extensively studied in human resource management literature. Work organisation and managerial practices are key determinants of skills utilisation and engagement level, as they affect the extent to which people are both motivated and given the opportunity to deploy their skills and fulfil their potential (Gallup, 2017[11]). Evidence from PIAAC shows that along with occupations, workplace practices are important predictors of skills use, above and beyond skills proficiency (OECD, 2016[103]).[6] Likewise, what happens within workplaces has long been identified as an important source of wage variation across similar workers in the same occupation and industry (Card and Kline, 2013[119]; Barth, Davis and Freeman, 2016[120]).

[6] Occupations reflect, at least in part, differences in job skill requirements (and therefore, in skills proficiency), which in turn largely determine skills use in the workplace. But jobs in similar occupations can also vary in the specific tasks carried out, reflecting differences in workplace practices (Autor and Handel, 2013[135]).

There are many different ways to organise work to improve the person-job fit among staff and provide opportunities for workers to grow in their jobs. Good practices in this regard include for instance:

- Good coherence and consistency between various aspects of job demands (e.g. physical, psychological, workload), on the one hand, and aspects such as decision latitude, skill discretion, degree of autonomy and predictability, on the other hand.
- Task-person job complexity or psychological complexity. In the former case, tasks can be objectively classified as simple or complex, based on the mental effort, education and skills that are required to complete them. In the latter case, complexity refers to the psychological dimension of tasks, for instance the variety and scope of work performed.
- Job rotation, job enlargement and job enrichment, which are answers to repetitive and monotonous work. Job rotation involves doing more than a single repetitive task, thereby opening opportunities for learning new tasks without changing the core content of work. Job enlargement is associated with increased breadth of activities, at a horizontal level. Job enrichment leads to more holistic changes in job roles and responsibilities, at a vertical level. It implies that employees have discretion to take on broader and more proactive tasks, as and when required.
- Autonomous or semi-autonomous teams, which are associated with increased work factors such as variety, identity, significance, autonomy and feedback.
- Employee participation, representation or involvement, which refers to a wide range of practices in organisations. Common to these practices is the attention paid to increasing employees' influence over how their work is carried out or over other work practices. For instance, participatory committees or staff discussion groups on improving potentially harmful working conditions are associated with improved well-being (Aust and Ducki, 2004[121]; Egan et al., 2007[122]).

There is growing evidence that all these aspects of work organisation, which draw on both aspects of workers skills and abilities (*i.e.* cognitive and non-cognitive), have positive impacts on employee attitudes and behaviours and, ultimately, on a variety of organisational outcomes, such as product or service quality, productivity and profitability measures (Patterson et al., 2010[44]). Moreover, a number of studies show that good practices causally produce those positive outcomes, although further longitudinal research is needed to build a more robust picture of organisational effects.

Of particular interest are the well-being outcomes of job rotation, enlargement and enrichment, because these practices often apply to low-skilled jobs, *i.e.* potentially arduous and/or monotonous ones (Patterson et al., 2010[44]). Job rotation is found to have a beneficial impact on certain psychophysiological stress reactions, for example diastolic blood pressure and self-reported positive experience of work. It also has a positive impact on muscle activities in the neck and shoulder. Studies investigating job enlargement and enrichment find a positive impact on the "role breadth self-efficacy", which refers to workers' own perception of their capability of carrying out a broader and more proactive set of work tasks that extend beyond prescribed technical requirements. This, however, comes at the price of increased workload. Finally, job enrichment is consistently found to improve job satisfaction, employee motivation and involvement, whereas lack of enriched job is found to lead to increased levels of psychological distress and depression.

Work organisation can also foster skill development, especially by learning on the job and from co-workers. Discretion for employees over how daily work is organised was found to be positively associated with skill use and skill development as well as learning at work through job tasks and knowledge sharing (Gallie, 2013[114]; Inanc et al., 2015[123]). Skills gains are especially beneficial for lower-skilled workers for whom participatory work arrangements play a compensatory role. Broader participation at the organisational level is more strongly associated with formal learning outcomes, such as training receipt (both whether one receives employer-provided training and the duration of training), and the quality of the training received, *i.e.* its usefulness in the current job and/or a job with a different employer or in another industry (Inanc et al., 2015[123]). A high-skill workforce is not achieved only by selective hiring. Employers can play a crucial role in enhancing their employees' skills by providing genuine channels of participation at all levels.

Overall, the way in which work is organised is an important enabling condition for individuals to fulfil their potential. However, good managerial practices also play an essential role in giving the right impetus, from the conception phase to the implementation process. Broad-based human resource policies and senior management set up strategical orientations for work organisation at the company level, while middle management and direct supervisors are the key actors on the ground. Ultimately, they are responsible for assigning work tasks and for providing adequate support and feedback. Their own management skills remain a critical success factor, not only for avoiding major imbalances between job demands and resources, or rewards, but also for creating a work environment conducive to professional and personal accomplishment.

There is extensive evidence that management styles at the work unit level matter (Patterson et al., 2010[44]; Knight, Patterson and Dawson, 2017[124]; Gallup, 2017[11]). In particular, comprehensive feedback systems that provide large amounts of specific and positive information on work behaviours and achievements can have a profound impact on job satisfaction, engagement and performance, including productivity. Even more when they are part of a broader performance management system that also includes participative goal setting and financial incentives, even though evidence suggests that good feedback remains the primary driver of good work outcomes. First, adequate feedback encourages and helps employees to deploy their hard as well as soft skills. Secondly, positive feedback can strengthen those skills, notably the soft skills, by influencing traits related to Contentiousness and Emotional Stability (Box 4).

The importance of feedback systems is a good example of how relatively simple interventions in the field of work organisation and management practices can make a big difference, for both employees and employers. In many cases, providing workers with better feedback and greater discretion will not imply any major organisational change. Such actions are relatively easy to implement, and it is merely a question of awareness and knowhow. Governments, as well as social partners, can help in facilitating knowledge transfers, notably for SMEs that often have no dedicated human resource function.

Box 4. Simple interventions can make a big difference

Soft skills are malleable. For instance, several school intervention programmes have been shown to be effective in strengthening self-esteem, self-confidence, locus of control, or motivation of children or adolescents. And these programmes have demonstrated tangible results in terms of improved school outcomes, with strong evidence for causality (Almlund et al., 2011[102]). In a number of cases, simple interventions were enough to make a difference. Even small exogenous shocks to soft skills may affect school performance. To take an example, giving words of encouragement before an exam (an intervention that might boost short-term self-efficacy or self-esteem) is found to improve test score significantly, in particular among students with self-reported difficulties (Behncke, 2012[125]).

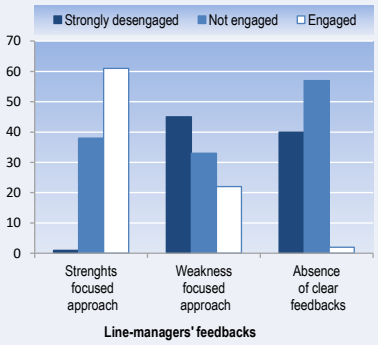
What applies to students at school also applies to adults at work, albeit causal relationships are less well established (mostly due to the evaluation design and methodology of available studies). An interesting example are the so-called "personal resource building interventions", which focus on increasing individuals' self-perceived positive attributes and strengths, often by developing self-efficacy, resilience or optimism (Knight, Patterson and Dawson, 2017[124]). These interventions are usually found to foster employees' engagement, in particular when initial engagement levels are low. Employees with high levels of personal resources are thought to positively appraise their ability to meet their work demands, believe in good outcomes and believe they can satisfy their needs by engaging fully in their organisational roles. Hence, line-managers who focus on employees' strengths create much stronger levels of engagement than those merely focusing on employees' weaknesses so as to fix them (Rutigliano and Brim, 2009[126]; Rath, 2007[127]).

Evidence from a survey of US employees shows that encouraging feedback can make a big difference (Brim and Asplund, 2009[128]). Interestingly, the worst-case scenario is when managers pay little attention to their staff, or so the employees perceive: people prefer any feedback to no feedback at all, even if that feedback is negative (*cf.* Figure). The same research also finds that one employee in four is left without adequate feedback on work performed, while slightly more than one in three receive strengths-focused feedback. This suggests that large untapped potential remains for productivity gains.

Managers' feedbacks and employees' engagement

Share of employees (%), by management approach

United States, 2009



Source : Brim and Asplund (2009), "Driving Engagement by Focusing on Strengths", *Gallup Business Journal* .

A number of OECD countries have taken policy initiatives to foster productivity gains and promote skills utilisation through workplace innovation (OECD, 2016[129]). The background to most interventions is the recognition that many firms, if offered advice and encouraged to adopt more effective managerial practices, can better utilise existing skills

and reap the productivity gains. These initiatives have focused on raising awareness, disseminating good practices and sharing expert advice, while presenting workplace innovation as a win-win option for employers and workers so that possible resistance can be overcome (Box 5). Critical in this respect is the identification of role models. Because government cannot be expected to help every firm to improve their work organisation and job design, initiatives have often supported the development of workplace innovations in a limited number of businesses and then used these for demonstration effects.

A one-size-fits-all approach is unlikely to work, underlining the importance of developing supportive expertise and creating opportunities for knowledge transfer. At the same time, countries can develop diagnostic tools to help companies identify measures that will promote a better use of skills and abilities. Because small companies find it more difficult and costly to adopt innovative practices, it is important to target interventions on SMEs with growth potential. A firm's ability to implement and benefit from better work organisation will also depend on the quality of its managers to implement changes in workplace practices in a productive way. Poor management skills can be a bottleneck to workplace innovation. Policies seeking to promote workplace innovations may thus need to be complemented with management skill development programmes.

The future of skills management: fuller use for greater value

Skills utilisation is central to workers' engagement, commitment and personal accomplishment at work. Work bore-out may result from the absence of meaningful tasks, challenges and rewards. Jobs at risk of disengagement include those involving monotonous, repetitive tasks as well as those that prevent individuals from fulfilling their potential by using their skills, knowledge and abilities to further their own and their companies' development. Frequent occurrence of skill mismatch and high levels of worker disengagement (only 15% of employees report high levels of engagement, while 18% feel not engaged at all) show considerable room for improvement.

Research demonstrates the importance of work organisation and management practices for worker engagement and skills utilisation. Worker autonomy is critical to the prevention of disengagement and bore-out and the use and development of skills. Work organisation using workers' skills and abilities leads to higher productivity, profitability and product or service quality. Job rotation has a beneficial impact on workers' health, while job enrichment increases job satisfaction and engagement. Adequate feedback helps employees to deploy their hard and soft skills and can even strengthen those skills.

Key policy levers to increase worker engagement and improve the utilisation of workers' hard as well as soft skills include:

- Flexible work organisation including job rotation/enlargement/enrichment;
- Work processes with discretion for workers to match job duties and preferences;
- Effective management practices including regular adequate feedback;
- Initiatives by governments and social partners to increase awareness on workplace innovations, to improve knowhow, and to facilitate knowledge transfers between and within organisations, in both private and public sectors.

Box 5. Policies to encourage workplace innovation: Examples of good practice

The Finnish Workplace Development Programme ran as a national government programme from 1996 to 2003 and continued from 2004 until 2010 with expanded resources (TYKES programme). The programme's introduction was motivated by the belief that sluggish productivity growth in Finland and the ensuing weakened competitiveness of firms in many traditional industries were due to inadequate utilisation of skills in the workplace. The programme aimed to disseminate new work, organisational and management practices, models and tools. The programme initially focused on individual enterprises, but networks played an increasing role and there was also a strong emphasis on disseminating good practice and mutual learning. In 2008, the programme was transferred to the Funding Agency for Innovation and the promotion of workplace innovation was given a permanent position, through a new programme entitled "Business, Productivity and Joy at Work". Qualitative evaluations suggest that the TYKES programmes were effective in promoting workplace innovation and productivity.

In Australia, policy engagement with workplace innovation has been driven by a perceived need to increase productivity. A number of Australian initiatives have sought to promote best practice in this area, dating from the Best Practice Demonstration Programme in the early 1990s to the more recent Partners at Work Grants Programme, currently operated in Victoria. This programme offers competitive grants to assist workplace changes that benefit all stakeholders, and is designed to encourage the development of co-operative practices in the workplace. It provides funding to support the appointment of consultants to work with organisations and for relevant training investments. There is evidence to show that some targeted firms have successfully adopted High Performance Workplace Practices (HPWPs) and that these firms have experienced improved performance.

Various initiatives take place in the Netherlands aimed to increase the awareness and managerial applicability of HPWPs led by the government, companies, and knowledge institutes. For example, in the Dutch province of Noord-Brabant, the regional government collaborates with various stakeholders to stimulate HPWP and to increase the cohesion among various initiatives in that area. Additionally, the regional government has introduced subsidies for HPWP. Companies in that region can also win a Social Innovation Award as recognition for a promising HPWP initiative. According to a large scale survey, the region of Noord-Brabant is one of the leading regions in the Netherlands on various types of innovation. Another interesting initiative is the Expedition Social Innovation, funded by the Dutch government, in which a group of entrepreneurs and managers meet and discuss what HPWP can mean for their organisation and how they can introduce them into the organisation.

The pursuit of workplace innovation in New Zealand has centred on improving its productivity performance. In fact, the country has singled out the poor utilisation of skills in the workplace as a key policy issue. In this context, the High-Performance Working Initiative (HPWI) provides business coaching for small- to medium-sized businesses to help streamline work practices to improve

performance while also increasing employee engagement and satisfaction. Business improvement consultants work with firms to improve their productivity. Funding is provided by the government agency Callaghan Innovation, with the firm providing half the funding also. The HPWI is part of a wider suite of services provided by Callaghan Innovation to help businesses improve their performance through lifting their innovation skills.

Sweden is often cited as having a highly developed and progressive system of work organisation which underpins high levels of innovation and productivity. Organisational models built on trust, teams and empowerment are widespread. In addition, policy in the country has been concerned with promoting progressive forms of work organisation for several decades. One notable feature of the Swedish system is that employee involvement in the management of businesses is mandated by legislation. Sweden's co-determination laws require employers to negotiate with unions before making major changes to business strategy or practice. However, current initiatives are taking a more direct and explicit stance at promoting HPWP. The Sweden's Innovation Agency Organising Work for Innovation and Growth programme sponsors a range of projects intended to promote and support the adoption of what are essentially HPWP.

Source: taken from OECD (2016), "Skills use at work: Why does it matter and what influences it?", *OECD Employment Outlook*, Box 2.5.

Conclusion: A critical role for governments

While improving the quality of work environments can benefit all, this also requires considerable investment by firms in order to identify, develop and implement appropriate employment practices. This is happening only partially and slowly. Various market failures, in part due to incomplete information and inadequate incentive structures, hamper job-quality investment by individual employers; hence, there is scope for public intervention. Especially for SMEs with limited resources to spend on human resource management practices, public intervention and support are of critical importance. Public initiatives are needed to curb inequalities between workers in different workplaces, different sectors and different occupations and sectors and, more generally, to break the link between socio-economic disadvantage and health. In short, governments need to act on job quality for three reasons and in three ways, to raise awareness among key stakeholders, to improve coordination between them and to put in place the right incentives to invest in good quality work.

There is a considerable *lack of awareness* on what constitutes a quality work environment conducive to personal accomplishment and greater engagement in work activities, and on the multiple positive outcomes that good working conditions could produce. Moreover, immediate implementation costs are more tangible than the expected short, medium and long-term benefits that tend to be more diffuse as they materialise over time. Overall, there is insufficient understanding of the net benefits from action and the costs of inaction.

There is a considerable *lack of coordination* between key stakeholders: employers, workers' representatives and various public entities. The later tend to work in silos, although a holistic and integrated approach is most often required to identify what should be done and how workplace innovations can be implemented effectively. In essence, "holistic and integrated" means involving several stakeholders with distinct but complementary roles and sharing expertise in various fields to achieve common or complementary objectives. There is a pressing need for better connections and closer cooperation between various expertise areas (e.g. human resource management, occupational health and safety, occupational psychology), between various operating bodies (e.g. labour inspectorates, health systems, vocational rehabilitation policies, benefit administration services), as well as between key actors on the ground (e.g. employers and workers' representatives) and experts/operators in various fields.

There are considerable *gaps and weaknesses in the incentive structure*. The central argument here is that the social value of quality work environments is higher than its private value. Implementation costs are mainly supported by individual employers while the benefits spread way beyond, encompassing both economic and non-economic aspects, both of critical importance to people's well-being. Investing in better quality work environments may thus become unproductive for an employer, while still generating positive outcomes for society. Therefore, governments have a key role to play in creating the enabling conditions to support and complement private sector initiatives, otherwise there would be insufficient investment compared to what would be socially and economically desirable. Correspondingly, the costs associated with poor working environments are lower for the current employer than they are for the whole society. Again, this reflects a variety of microeconomic distortions, notably the fact that affected workers can be dismissed or replaced and that part of the healthcare costs and benefit payments resulting from work-related diseases and injuries are borne by all taxpayers. Moreover, at the firm level, part of

the costs of an employee on sick leave may be supported by an increased workload of co-workers. Therefore, governments should ensure that firms have the right incentives to internalise the social cost of poor working conditions in order to enhance economic efficiency and well-being.

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