



European

Working Conditions

Survey 2015

**Working conditions of
workers of different ages**

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European Working Conditions Survey 2015



European Foundation
for the Improvement
of Living and Working
Conditions

When citing this report, please use the following wording:

Eurofound (2017), *Working conditions of workers of different ages: European Working Conditions Survey 2015*
Publications Office of the European Union, Luxembourg.

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Eurofound project: Analysis of sixth EWCS data – Working conditions of workers of different ages

Luxembourg, Publications Office of the European Union, 2017

Print	ISBN 978-92-897-1619-2	doi:10.2806/377947	TJ-06-17-295-EN-C
PDF	ISBN 978-92-897-1618-5	doi:10.2806/879475	TJ-06-17-295-EN-N

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Printed in Luxembourg

Cover image: © Eurofound 2017, EUP-Images/Polet

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Country codes

EU Member States

AT	Austria
BE	Belgium
BG	Bulgaria
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
EL	Greece
ES	Spain

FI	Finland
FR	France
HR	Croatia
HU	Hungary
IE	Ireland
IT	Italy
LT	Lithuania
LU	Luxembourg
LV	Latvia
MT	Malta

NL	Netherlands
PL	Poland
PT	Portugal
RO	Romania
SE	Sweden
SI	Slovenia
SK	Slovakia
UK	United Kingdom

Executive summary

Introduction

Demographic ageing implies a greater participation by older people in the labour market. To enable this, it is important to examine the factors that can facilitate or hinder extended working lives. Making work more sustainable over the life course requires working conditions that support individuals in remaining in work until the statutory retirement age.

Many factors influence sustainable work: individual characteristics, work-related elements, social norms and the institutional context. This report focuses on the role of working conditions in shaping sustainable work over the life course, using data from Eurofound's European Working Conditions Survey (EWCS 2015). The report investigates working conditions for different age groups, and links these conditions to three sustainable work outcomes: work–life balance, health and well-being, and career prospects. It also investigates differences in working conditions on the basis of gender, occupation and country.

Policy context

In recent years, many Member States have raised the retirement age and provided financial incentives to work at older ages – in a few cases, seeking to improve working conditions. At EU level, the European Pillar of Social Rights aims to foster convergence towards better working and living conditions. Its principles include efforts to make work sustainable, such as: training and lifelong learning; flexible working arrangements for better work–life balance; and the right to a working environment adapted to workers' needs. Both the Pillar and the Europe 2020 strategy seek to increase employment rates across the board, suggesting that the focus on improving working conditions must extend to include all age groups. And in the recently concluded autonomous agreement on active ageing, the European social partners commit to facilitating older workers in actively participating in the labour market until retirement age.

Key findings

Poor working conditions have a negative impact on sustainable work outcomes for all employees, regardless of age. Employees who are exposed to physical risks and quantitative demands (working at high speed and to tight deadlines) are more likely to experience worse health and poorer work–life balance. They are also more likely to state that they will not be able to continue work until

age 60. Intention to depart the workforce earlier is also significantly associated with poor-quality management and experiencing adverse social behaviour.

Some aspects of working conditions remain stable or deteriorate until the age of 55 and then improve. Workers aged 55 and above report less exposure to physical risks, shorter weekly working hours and greater working time autonomy; older employees also report better work–life balance. However, older employees also participate less in training, and have more limited career prospects.

Workers aged 45–54 years report fewer quantitative demands but their level of exposure to physical risks is nearly as high as that of younger workers.

A critical issue for employees aged 35–44 years is work–life balance, since they tend to work longer hours and have more care responsibilities.

Results are mixed for younger employees (aged 35 and under) regarding the social environment at work. They are more likely to have social support and positive encouragement from colleagues and their boss, but also experience more adverse social behaviour – particularly women. They are also the most likely to work on temporary contracts, which may contribute to the greater job insecurity they report.

An analysis of the working conditions of workers of different ages also has to take into account differences between occupations. For all ages, a lower occupational level is associated with poorer health and well-being, and poorer career prospects. Especially for low- and mid-level occupations, working conditions are consistently poor over the life course. The impact of poor working conditions from a young age is likely to accumulate, resulting in poor outcomes at an older age.

Unsurprisingly, working conditions vary by country and by age group across countries: in Hungary and Greece, work–life balance among older employees is much poorer than elsewhere. And for workers within the same occupation, country differences in working conditions outcomes are also evident.

Sustainable work outcomes affect the expected duration of working life – not necessarily in expected ways. Belgium, for example, with generally a good picture of sustainable work, has a shorter duration of working life. Estonia, in contrast, with poorer results for sustainable work outcomes, has a longer duration of working life and higher employment rates at older ages. These differences could be due to different institutional arrangements that facilitate or hinder early retirement.

Policy pointers

Importance of working conditions for workers aged

55+: It is precisely at the age of 55 that participation in work strongly declines. Conditions of work such as good physical environment, lower quantitative demands and working time autonomy increase the likelihood of workers continuing working when they are aged 55 and over.

Recognise role of national institutional context:

Institutional and social contexts play an important role in determining duration of working life. Extending working life hence depends on measures in the areas of pension systems, health, education and care.

Workplace social partners have a particular role:

Differences between countries in relation to working conditions have to be considered, for example, for the implementation of the Social Partners' Framework Agreement on Active Ageing at national level. The role that employers' and workers' representatives can play at national, sectoral and workplace level is essential.

Broaden definitions of 'arduous jobs': Occupations where work over the life course has a negative effect on sustainable work outcomes require particular attention. The physical context, work organisation and social environment (including psychosocial risks) need to be considered. In line with this, in countries where

arduous jobs are defined and given special treatment, psychosocial risks should be factored in.

Prioritise training for older employees: One of the challenges that demographic change poses is that of maintaining and updating the skills of the workforce. To increase the share of older employees involved in learning and on-the-job training, implementing the first principle of the European Pillar of Social Rights (on-the-job training for employees over the age of 45) should be a priority.

Monitor trends in world of work: Changes in the world of work are likely to have implications on working conditions across all ages and could impact on sustainable work over the life course. For example, the use of temporary contracts (currently limited largely to younger employees) may spread to other age groups with potential consequences. At the same time, technological developments associated with the digitalisation of work may offer opportunities for older workers' participation. Research and policy work need to monitor these developments.

Further research required on role of motivation:

Finally, motivation has been identified in the literature review as one of the key factors contributing to remaining at work until older age. This aspect has to be further investigated.

Introduction

Introduction

The continent of Europe is getting older. Consistently lower birth rates and higher life expectancy are transforming the balance of the EU population structure, resulting in a greater proportion of people in older age groups (Eurostat, 2017a). The consequences of this demographic shift are twofold. First, as the population ages, the proportion of people of working age shrinks and the relative number of those living beyond working age expands. This puts a heavier burden on a diminishing population of workers to provide for the social expenditure required for a range of public services to assist an ageing population. Second, although the employment rate of older workers (aged 55–64 years) has increased across all EU countries over the last 15 years, it still remains below the target of 50% for this age group agreed at the 2001 Stockholm European Council (Eurofound, 2012a).

EU Member States have responded to these challenges by focusing on measures to raise the legal and effective retirement age and limit access to early retirement. These reforms have involved efforts to provide financial incentives for employees to continue working after the statutory retirement age (Eurofound, 2013). However, such measures on their own may be insufficient to foster an extension of working life. A range of factors influence workers' decisions to continue work or to retire early, stemming from different dimensions of those workers' lives. Individual circumstances, family life, leisure time and the surrounding society must be considered, together with the fact that working life itself can affect physical and mental health and the motivation to continue working. These aspects are fundamentally connected to the working conditions a person experiences over the life course. By identifying the workplace factors that influence the ability or willingness to work, and how these factors affect the workforce depending on age, occupations, gender and the country in which workers live, it is possible to take actions to foster more sustainable work and hence support extended working lives for all working people.

This report focuses on aspects related to the working conditions of sustainable work. Eurofound's concept of 'sustainable work over the life course' means that working and living conditions are such that they support people in engaging and remaining in work over the course of an extended working life. These conditions enable a better fit between work and the characteristics or circumstances of the individual over the life course; they must be developed through policies and practices both inside and outside the workplace (Eurofound, 2015a). Bearing in mind that the Europe 2020 strategy aims to increase employment rates, the focus should extend beyond older workers to include boosting the participation of workers

across generations. Improving working conditions – therefore – while a goal in itself, also contributes to overcoming demographic challenges by making work more sustainable over the life course.

Two recent EU policy initiatives address the issue of demographic change and the improvement of working conditions. The first is the European Pillar of Social Rights, a reference framework that sets out a number of key principles and rights to support fair and well-functioning labour markets and welfare systems, with the aim of fostering a renewed process of convergence towards better working and living conditions. Some of those rights are related to sustainable work, including: the right to inclusive education, training and lifelong learning; the right to suitable leave and flexible working arrangements for better work–life balance; and the right to a working environment adapted to workers' professional needs to enable them to prolong their participation in the labour market. A second initiative – emerging in response to the challenges deriving from demographic change – comes from the European social partners' autonomous agreement on active ageing and an intergenerational approach (ETUC-CES et al, 2017). The agreement commits to making it easier for older workers to actively participate and remain in the labour market, with the overall aim of supporting workers of all ages to stay in the labour market, leading healthy and active working lives until the legal retirement age.

This report follows the ambition of such policy endeavours by providing fresh insights into the factors contributing to sustainable work over the life course. It builds on prior Eurofound research on the working conditions of older workers (Eurofound, 2008) and sustainable work in the context of an ageing workforce (Eurofound, 2012b). The goal of this report is to investigate the incidence and prevalence of specific working conditions for different age groups, and to link these conditions to sustainable work outcomes. The report will also look at the differences in working conditions by occupation and country, accounting for the qualities that favour or disadvantage certain profiles of workers over others. Differences by gender are reflected where relevant. Findings from this report illuminate the factors driving sustainable work through an age-specific lens, offering useful information to guide further measures to be taken by governments and social partners.

Chapter 1, drawing on a review of the relevant literature, outlines the factors critical to sustainable work that derive from individual characteristics and circumstances, work characteristics and the institutional setting. Chapter 2 complements this with a statistical analysis of the associations between selected working conditions

and key work-related outcomes. Using data from the sixth European Working Conditions Survey (EWCS), a structural equation model (SEMS) is presented to identify the most important components of working life that are strongly linked to sustainable work. Based on this analysis, Chapter 3 focuses on the incidence of these components across age groups and draws attention to the differentiated conditions facing employees of different ages. Chapter 4 elaborates on how conditions can differ for employees of different ages according to occupation, and Chapter 5 describes a country comparison to highlight differences in working conditions and sustainable work across the 28 Member States of the EU (EU28). An analysis of selected countries in Chapter 5 positions these national differences in the context of countries' demographic and institutional characteristics.

1 | Factors related to sustainable work

1 Factors related to sustainable work

As defined in the introduction, sustainable work refers to a state of working and living conditions that supports people in engaging and remaining in work throughout an extended working life. Making work more sustainable can have the dual effect of increasing employment rates and extending working life.

The idea behind sustainable work is that work performed in the present will have an impact on how we work in the future (Eurofound, 2015a). Faced with the diversity and flexibility of working life, and given the potential of sustainability of work to address the challenges of an ageing population and attendant pressures on retirement expenditure, the concept is gaining increasing public recognition as a useful concept. By accommodating employees' individual characteristics and circumstances to facilitate their participation in the labour market, sustainable work contributes to ensuring that people are able and willing to work until retirement age.

Research shows that working conditions and work organisation are of critical importance in guaranteeing that workers can build up and regenerate their personal resources in terms of capacities, health, well-being and skills, rather than deplete them (Volkoff et al, 2005; de Wind et al, 2016). Additional findings emphasise that improving working conditions can help keep older workers in employment, particularly those at the lower end of the socioeconomic ladder (Wahrendorf et al, 2013a).

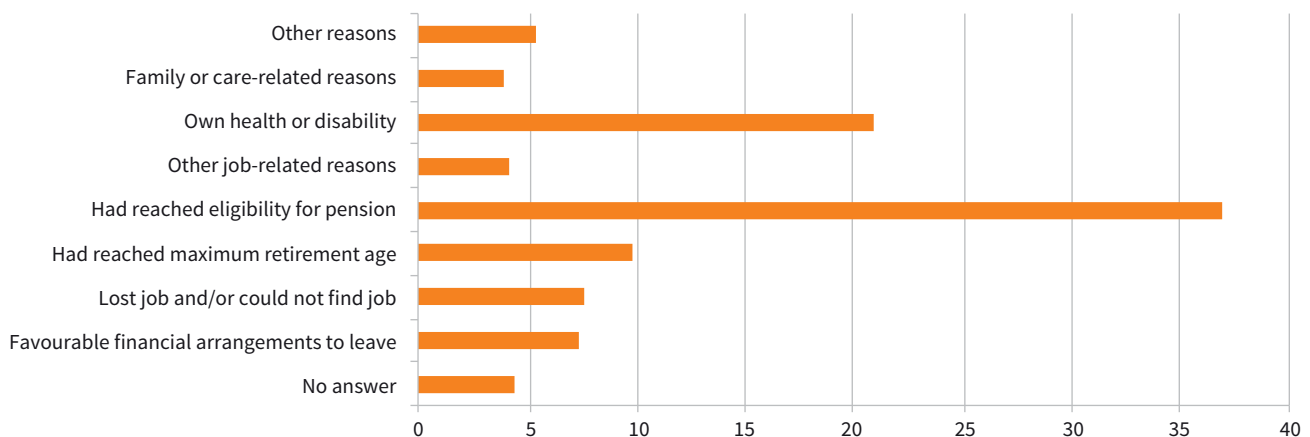
The EU Labour Force Survey (EU-LFS) statistics for 2012 offer a valuable illustration of the variety of factors influencing labour market participation (Eurostat, 2012).

The survey, pictured in Figure 1, reveals how labour market features, stemming from both institutions and working conditions, can condition an individual's ability and willingness to pursue work.

Pension eligibility is the primary reason for stopping work for more than one-third of those surveyed, underscoring the importance of social security regulations and retirement schemes. Behind this statistic, it could be concluded that there are individuals in this category who are able to continue working but who decide to retire because their working conditions either do not motivate them or render further participation unfeasible. The second most-cited reason for stopping work is ill-health; this can also be affected by one's work environment due to concerns over work-life balance and job intensity, for example. Other factors can also be linked to the sustainability of work, such as family or care-related reason', 'other job-related reason' and losing a job and being unable to find another. It is therefore worth exploring the influence of working conditions on labour market participation – not just at the point of retirement, but throughout the life course.

This chapter reviews the individual, work-related and institutional factors related to sustainable work, with an emphasis on those factors that allow workers to be able and willing to work until retirement age. This is approached through a review of relevant articles and studies, which guides the subsequent analysis of the effects of working conditions and individual characteristics on job sustainability through a statistical model, using data from the EWCS 2015.

Figure 1: Main reason for economically inactive people aged 50–69 in receipt of a pension to stop working (%)



Source: Eurostat (2012); unless otherwise indicated, the source for all figures and tables is Eurofound and the EWCS 2015.

Individual factors

In considering the determinants of sustainable work, Eurofound has typically differentiated factors along two domains – one being characteristics of work (particularly job quality and work environment) and the second being individual characteristics and circumstances. Aspects beyond the workplace and the individual, such as childcare facilities or retirement incentives, also play a role in structuring the institutional context for sustainable work pathways.

Working conditions affect an individual in terms of their health, skills and employability, work–life balance and motivation (Eurofound, 2015a). Conversely, individual characteristics and circumstances also influence the impact of working conditions. Employees may be exposed to the same conditions but experience different outcomes because of specific individual characteristics: educational attainment and health status are two key individual characteristics that influence participation in the workplace and work sustainability (EU-OSHA et al, 2017). Another is gender.

Education

Level of education is one of the determinants for leaving the labour market; it is also related to young workers' job prospects. In older age groups, a greater proportion of individuals lack a tertiary level of education; this can pose a challenge for their career progression and learning possibilities, especially in the context of further technological change and requirements for updating work-related skills. However, an interesting trend indicated by the EWCS since 1990 is that the educational attainment of all age groups in the EU has increased: younger workers consistently report educational levels that are higher than those of preceding generations. Therefore, as these younger workers get older, the level of education of future generations of older workers is expected to continue increasing, along with the possibilities for their career and skills development. If this trend of increasing levels of education in Europe continues, it will certainly represent a positive contribution to sustainable work and extended working life. However, among those with only a basic level of education, there is a tendency to remain in the same occupation over the long term, in spite of physically demanding working conditions and the fact that their physical capacity decreases with age.

Health

Another, perhaps more obvious, individual characteristic linked to sustainable work and participation in the labour market is health status. Health status is fundamental to the ability of older people to participate in work and can determine whether a person can work until the legal retirement age. According to the EU-LFS statistics for 2012, in the 28 EU Member States, around 20% of people receiving a pension stated that the main reason for ceasing work was the status of their health or disability (Eurostat, 2012). Data from the EWCS 2015 corroborate this finding,

showing that older workers report worse health status and are likelier to report having a chronic illness (an illness lasting more than six months) than any other age group. Chronically ill employees often experience great difficulties either staying at work or returning to work after a long period of absence (Corral et al, 2014). The incidence of a range of chronic illnesses, such as cardiovascular diseases, cancers, chronic obstructive pulmonary disease, diabetes and depression, is increasing as a result of population ageing (Varekamp et al, 2013). Despite the overall improvement in the health of the population in the long term, according to the EWCS and the EU Statistics on Income and Living Conditions (EU-SILC), the overall perceived health status of the European workforce has not significantly changed from 2010 to 2015.

Care responsibilities

Alongside education and health, it is worth mentioning the impact upon a person of care responsibilities for family members. Care responsibilities shape the capacity of workers to balance commitments in the workplace and outside, with clear implications for their work–life balance. The EWCS 2015 shows that half of all employees in Europe care for children or grandchildren daily or several times a week; 1 in 10 care for elderly or disabled relatives as frequently. However, the extent of caring for children peaks in the age group 35–45 years, while caring for a disabled or elderly relative increases with age, reaching a peak among employees older than 55 years.

Work-related factors

In the domain of work-related factors, recent research has highlighted various characteristics that can give insights into the factors that either impede or improve sustainable working life. Building on the framework for sustainable work, these qualities can be grouped into four dimensions: social support and resources and rewards; prospects (job security, career); working time (autonomy, work–life balance); and job quality (physical and social environment, arduousness).

Social support, resources and rewards

In general, the benefits and rewards attached to jobs are essential mechanisms for making work more sustainable. Research suggests that older adults who are given opportunities to learn new skills and/or participate in training intend to stay longer with their employers (Armstrong-Stassen and Ursul, 2013). This may be because, as data from the EWCS 2015 demonstrate, workers aged 55 and above report the lowest levels of 'learning new things' on the job and participating in employer-sponsored training; such workers are more vulnerable than younger workers to leaving the labour market as a result of skills obsolescence (EU-OSHA et al, 2017). Underlining the importance of skills-related factors, it has been found that the well-being of workers across all ages is strongly associated with higher levels of skill discretion – that is, a wider variety of tasks and creative learning at work (Stansfeld et al, 2013). Such

positive aspects of the job are likely to keep individuals motivated and to contribute to personal growth. Therefore, improving working conditions in the long run requires the targeting of individuals in occupations that are characterised by low levels of continual skills learning and training.

Additionally, effort–reward imbalances are proven predictors of intention to retire. Data from the Survey of Health Ageing and Retirement in Europe (SHARE) demonstrate that across occupations and social class, workers are more likely to retire early if they report a lack of control and a high level of imbalance between effort and rewards at work (Wahrendorf et al, 2013b). Advantageous circumstances, such as better social support and financial rewards, have been shown to be positively associated with job satisfaction, work engagement and employee well-being; these outcomes support longer and healthier working lives and underscore the importance of certain extrinsic factors for employees throughout the life course.

Prospects

The influence of career prospects and intrinsic rewards must also be taken into account. As Patricia Vendramin and Gérard Valenduc note, ‘work is not just a means of earning a living, but also a means of self-realization, recognition and social contacts’ (Vendramin and Valenduc, 2014, p. 58). When workers lack purpose or direction in their work, they become more susceptible to exiting the labour force. Relevant literature has consistently highlighted the barriers to an extended working life that emerge from a lack of opportunities for development and progression in the workplace (Loretto and White, 2006; Porcellato et al, 2010; Thorsen et al, 2016). Recent evidence from Sweden observed that 90% of those who chose to work beyond the age of 65 felt a strong attachment to their work and found it stimulating and enriching, citing this as the principal reason for staying in the labour market (Anxo et al, 2017).

Within this older cohort, there are nuanced differences across gender as well. Women are likelier to place greater importance on workplace status after the age of 55 – what some authors have referred to as an ‘empty nest syndrome’, stemming from a decrease in non-work commitments and increasing concern for job prospects (Inceoglu et al, 2012, p. 324). Other research notes the shortcomings affecting the job security of mid-career professionals (ages 40–55), among whom women are more likely to experience limited control and limited rewards at work. Men who experience involuntary job loss or job instability at this mid-career stage are likelier to suffer depressive symptoms after exiting the labour market (Wahrendorf et al, 2013a).

Working time

In addition to job security and career prospects, time management is also of great importance. Long working hours are connected to negative outcomes, such as cardiovascular disease, musculoskeletal disorders and

symptoms of depression (Eurofound, 2016a, p. 52). For men and women alike, working hours that do not ‘fit’ with life outside of work are shown to influence self-perceived health, with the relationship between work–life balance and job satisfaction being especially pronounced among older female workers (Vendramin and Valenduc, 2014, p. 57). Among older cohorts, having greater job autonomy and the ability to determine one’s own working hours are key drivers of extended working life (Thorsen et al, 2016; Anxo et al, 2017). Older workers tend to prefer flexible working conditions, such as the option to work from home, as well as reduced hours over which the worker has some autonomy. Job autonomy can also help mitigate the effects of job strain, a concept from the Karasek model, which considers the combination of high intensity with limited control or decision latitude for workers (Karasek, 1979). Job strain tends to decline with age as workers adapt to the workplace and reduce work-related stress levels.

Previous work from Eurofound has shed light on the strong influence of work–life balance as both a ‘push’ and a ‘pull’ factor for workers over the life course – most notably, for those in the mid-career phase. For mid-career groups – particularly those navigating the transition to parenthood – there is evidence supporting a link between working time autonomy and work–life balance (Eurofound, 2012c). Having the option of a non-standard working schedule generally allows parents to arrange their hours to facilitate a better balance between work and non-work commitments. It is worth noting the occupational differences in terms of how non-standard schedules are applied: *voluntary* non-standard schedules are more common among highly skilled workers, whereas schedules that are *involuntarily* non-standard can disproportionately affect low-wage workers and cause greater levels of stress and work–family conflicts (Lozano et al, 2016, p. 262).

Job quality

Mental and physical health problems are strongly linked to the physical and psychosocial work environment. Poor psychosocial working conditions have been found to be associated with occupational injuries (Gillen et al, 2007) and absenteeism (Melchior et al, 2003). A hostile or high-pressure environment, physically demanding work, and high exposure to stress are proven to force older workers into early retirement (Reeuwijk et al, 2013; Pohrt and Hasselhorn, 2015). The European Survey of Enterprises on New and Emerging Risks (ESENER) reveals that work-related stress is of some concern or major concern in nearly 80% of workplaces in the EU (EU-OSHA, 2015). Estimates from the EU-LFS 2013–2014 suggest that added together, work-related stress, depression and anxiety accounts for 39% of all cases of work-related illnesses (Leka and Jain, 2017).

Health problems arising from poor working conditions are found to be especially acute in certain occupations; these vary across age, gender and class. Men in manual and low-skilled jobs are more likely to experience musculoskeletal disorders and stress, while women in personal services and low-skilled work are more prone

to experiencing such issues, particularly due to a lack of career prospects (Vendramin and Valenduc, 2014). Additionally, the unrecognised labour of household work can distort the work–life balance, such that 58% of women (and 48% of men) aged over 50 years say that they will not be able to sustain work beyond the age of 60 (Vendramin and Valenduc, 2014, p. 58). Meanwhile, the 2009 Austrian Employee Health Monitor found that 42% of white-collar workers were forced into early retirement because of work-related psychosocial disorders (EU-OSHA, 2014).

Over the life course, the accumulation of these factors can provoke health risks and significantly inhibit workers' ability to extend their working lives. There is a strong correlation between psychosocial work conditions and health in the years leading up to retirement, with greater levels of control and influence over the job being associated with better health outcomes at older ages (Schmitz, 2016, p. 190). With the exception of accidents and injury, older workers are far more likely than younger workers to report adverse work-related health outcomes: controlling for working conditions, this demonstrates that health is a matter of cumulative work experience, with the greatest consequences arriving when workers reach an older age (Jones et al, 2013, p. 26). Conversely, some of the conditions contributing to negative health outcomes – specifically, high work intensity and low autonomy – are most common among younger workers, and they decline with age (EU-OSHA et al, 2017, p. 20).

Related to this, younger workers are more likely to be employed in temporary, precarious or less prestigious occupations, with research suggesting that such forms of employment render young people particularly vulnerable to experiencing health problems (Canivet et al, 2017; Vancea and Utzet, 2017). This is underlined by a recent report which examines the links between arduous and precarious work, and concludes that precarious workers 'not only suffer from poor working conditions and social protection, but also from the danger of jeopardizing their physical and psychosocial well-being' (ETUC et al, 2016, pp. 79–80).

Broader measures of class and socioeconomic status have identified the ways in which 'low-class workers', particularly those working in manual labour and exposed to hazardous risks, are forced into exiting the labour market (Radl, 2013; Ebbinghaus and Radl, 2015). Individuals of lower socioeconomic status – typically considered lesser educated, blue-collar workers – are more likely to experience worse psychosocial work environments and greater effort–reward imbalances, and to express a desire to retire early (Schmitz, 2016). Conversely, workers at the higher end of the occupational hierarchy – specifically those who are self-employed or in high-skilled positions – are more disposed to extend their working life beyond retirement (Wahrendorf et al, 2017).

BOX 1

Work motivation and age

Inceoglu and her colleagues have defined motivation as 'stable trait-like tendencies' that are activated 'by specific aspects of the work environment or outcomes' (Inceoglu et al, 2012, p. 301). Findings suggest that motivational factors are key determinants in the decision-making process towards the work–retirement transition (Pohrt and Hasselhorn, 2015). Labour market participation and an extended working life both require some degree of individual motivation. Likewise, good working conditions are a precondition for motivating people to pursue extended working lives. Although the available data are limited, findings suggest that motivational factors vary throughout the life course and are critical to the extension of working life at an older age. Research on this topic tends to show that across occupational groups, intrinsic motivation (that is, the meaningfulness of work) increases with age (Barnes-Farrell and Matthews, 2007; Inceoglu et al, 2012; Waginger, 2015). More concretely, younger workers are found to be more drawn to extrinsic motivators such as wages, promotions and career prospects, but as they reach old age, workers are more likely to value intrinsically rewarding job features such as autonomy and a fulfilling work environment. Of course, this is not to say that meaningfulness is irrelevant for younger workers; recent research testifies to the value of the 'expressive dimension' of work for younger age groups (Méda and Vendramin, 2017). Moreover, the impact of these factors should be considered alongside the health and financial status of the employees.

The factors listed below outline the working conditions that positively influence motivation across age cohorts.

Younger workers: Income, career prospects, learning new things

Older workers: Fewer quantitative demands (having a slower pace of work, longer deadlines and fewer interruptions), shorter working hours, flexibility and autonomy, physical safety

Rather than generally declining with age, motivation shifts from extrinsic to intrinsic sources, underscoring the importance of certain working conditions for different age groups. Being engaged in a challenging and fulfilling environment, having greater autonomy and working fewer and more flexible hours have been shown to motivate older individuals to remain in work until or beyond the retirement age. (See also Table A1 in the Annex for observations on the importance of work-related factors over the life course.)

Institutional factors

Thus far, information has been presented on those factors influencing sustainable work that stem from the characteristics of the individual, the household and the workplace. On top of these spheres of life, shaping and interacting with each of them, is the institutional and contextual setting. At the macro level, legal practices and regulatory regimes condition the quality and direction of work over the life course. National policies relating to pensions, taxes, benefits, employment protection, education and training, healthcare and the labour market can play a vital role in the development of sustainable working lives. In recent years, Member States have focused their attention on the impact of demographic ageing and responded with policies to raise the average retirement age, extend the mandatory contribution period for full pension eligibility, and foreclose the opportunities for early retirement; in some cases, these reforms have been complemented by financial incentives to continue working beyond the statutory retirement age.

As Eurofound (2013) has previously noted, such measures may help alleviate public budget shortfalls, but are not sufficient to support older workers in continuing their working careers. An institutional approach to sustainable work must incorporate broader measures to enhance working conditions throughout the life cycle (especially targeting those working in occupations that incur greater physical demands or psychosocial stress) and policies aimed at increasing motivation and participation in the long term.

This is reflected in the relevant literature: cross-country comparisons for Europe show that decreases in employment rates among older age groups are not directly caused by intentions to retire, but depend more on whether the institutional context favours older workers' employment and diverse forms of labour market exit, including unemployment, incapacity and early retirement (Vendramin and Valenduc, 2014). Data from SHARE suggest that older workers generally respond to the benefits and protections embedded in retirement schemes: as incentives to leave employment before

the statutory retirement age diminish, older workers should be more inclined to stay longer in the labour force (De Preter et al, 2013). However, restrictions on access to special retirement provisions can have negative consequences if they are not matched by measures supporting employability and sustainability for workers. A recent survey of national policies for workers in arduous or hazardous jobs determined that diminishing retirement protection can lead to the 'individualisation of old age risk', forcing workers to bear a greater burden of income self-sufficiency in spite of arduous working conditions (Natali et al, 2016, p. 7). These conditions, as the literature on work-related factors makes clear, are detrimental to a sustainable working life, but as David Natali and his co-authors argue, they can be remedied through a holistic approach focusing on illness prevention and health-related rehabilitation programmes, improvement of the work environment and implementation of active labour market policies (Natali et al, p. 9). These active labour market policies – entailing investment in job training, boosting efforts to further qualify workers even later in their career, and policies to integrate disadvantaged groups – has been proven to mitigate the negative labour market consequences of lower educational levels and work-related stress (Lunau et al, 2015, p. 13).

A different aspect of the institutional setting is the normative context. Results based on European Social Survey data point to a significant association between prevailing attitudes on the ideal timing for retirement in a society and individual retirement behaviour: a 'transition to retirement' culture correlates with greater participation of older people in the national labour market, while a comparatively exit-oriented culture sees higher rates of early retirement (Jansen, 2013). Furthermore, attitudes towards working at older ages can infiltrate workplace norms and affect older workers' psychological engagement and quality of life. In particular, research has found that the practice of differentiating workers by age can lead to psychological withdrawal and intergenerational conflict among workers (Desmette and Gaillard, 2008). This can shape workers' decisions on whether to stay longer in work or to exit prematurely.

2 | Relationship between working conditions, outcomes and sustainable work

2 Relationship between working conditions, outcomes and sustainable work

Having identified the factors most relevant to sustainable work and work until retirement age, the analysis proceeds by measuring how these factors relate to sustainable work. Using the latest data from the EWCS 2015, this chapter focuses mainly on how job-related factors influence selected indicators of sustainable work for employees. These indicators include: work–life balance, subjective well-being, self-rated health and the perceived ability to work until age 60. This final indicator is alternatively termed ‘attitudes towards sustainable work’, since it effectively rates employees’ subjective evaluation of the sustainability of their job.

Modelling sustainable work

The concept of sustainable work can be defined more specifically for the analysis in this chapter as working conditions having a positive effect on the ability to stay in the labour market until retirement age. Unfortunately, the EWCS does not indicate until what age workers remain in the labour market. The EWCS is a cross-sectional survey of working people and thus gives a snapshot of a particular point in people’s working lives. Even with other data, determining the age of labour market exit would not be straightforward: for example, effective retirement ages give only a partial picture of ability to remain in the labour market, because effective retirement ages reflect both the *ability* to work and the *willingness* to work. This willingness may depend largely on pension entitlements or on individual preferences, neither of which is relevant to the concept of sustainable work.

The analysis in this chapter will therefore focus on the association between working conditions and indicators of sustainable work. More concretely, based on the factors identified from the literature review and past Eurofound research, the analysis postulates that the

working conditions that are positively associated with physical and mental health, well-being, good work–life balance and good prospects will be working conditions that have a positive effect on sustainable work. In the first part of this chapter, factors related to health, well-being and work–life balance will be analysed. Because the factors related to prospects are to some extent different from those related to those factors, they are considered separately at the end of this chapter.

Health, well-being and work–life balance are influenced both by working conditions and by individual characteristics. Although individual characteristics are not the main focus of this analysis, they need to be included in the estimation to be better able to isolate the effect of working conditions. Additionally, working conditions, health, well-being and work–life balance are related to attitudes towards work sustainability.

Indicators for sustainable work such as health, well-being, work–life balance and attitudes towards sustainable work do not operate in isolation. They may be influenced by job characteristics or individual characteristics or circumstances, which in turn may also influence each other. For example, it is well known that mental and physical health are mutually related: any characteristic of the job that demonstrates an effect on mental health may also indirectly have an effect on physical health.

The effects of working conditions on health, well-being, work–life balance and the attitude towards work sustainability, as well as their interrelation, are estimated with a statistical method called structural equation modelling (SEM). This method caters for modelling the interrelations between variables and also allows the incorporation of variables not directly observed in the data (latent variables). For more details on the method, see Box 2.

Box 2

Structural equation modelling

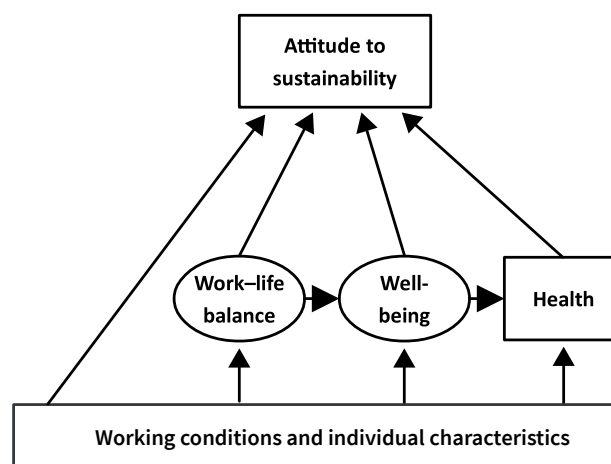
Structural equation modelling (SEM) is a statistical modelling technique that combines path analysis and factor analysis. SEM usually includes several regression equations in which the endogenous variable of one equation can also be the exogenous variable in another regression. These regressions are estimated simultaneously by minimising the difference between the sample covariance and the covariance predicted by the model (Bollen, 1989).

A path diagram represents a system of equations and incorporates causal assumptions. SEM cannot be used to prove causality; it casts doubt on these causal assumptions if the model does not fit the data and makes them tentatively more plausible otherwise (Bollen and Pearl, 2013).

Confirmatory factor analysis in SEM is used to incorporate latent variables. Latent variables are variables that cannot be directly observed in the data. Factor analysis is used to infer latent variables from sets of observed variables that are measurements of those latent variables. This process avoids having to rely on single indicators and therefore reduces measurement error of the latent variable.

The model in this report has been estimated using the R package *lavaan* (Rosseel, 2012).

Figure 2: General structure of the model

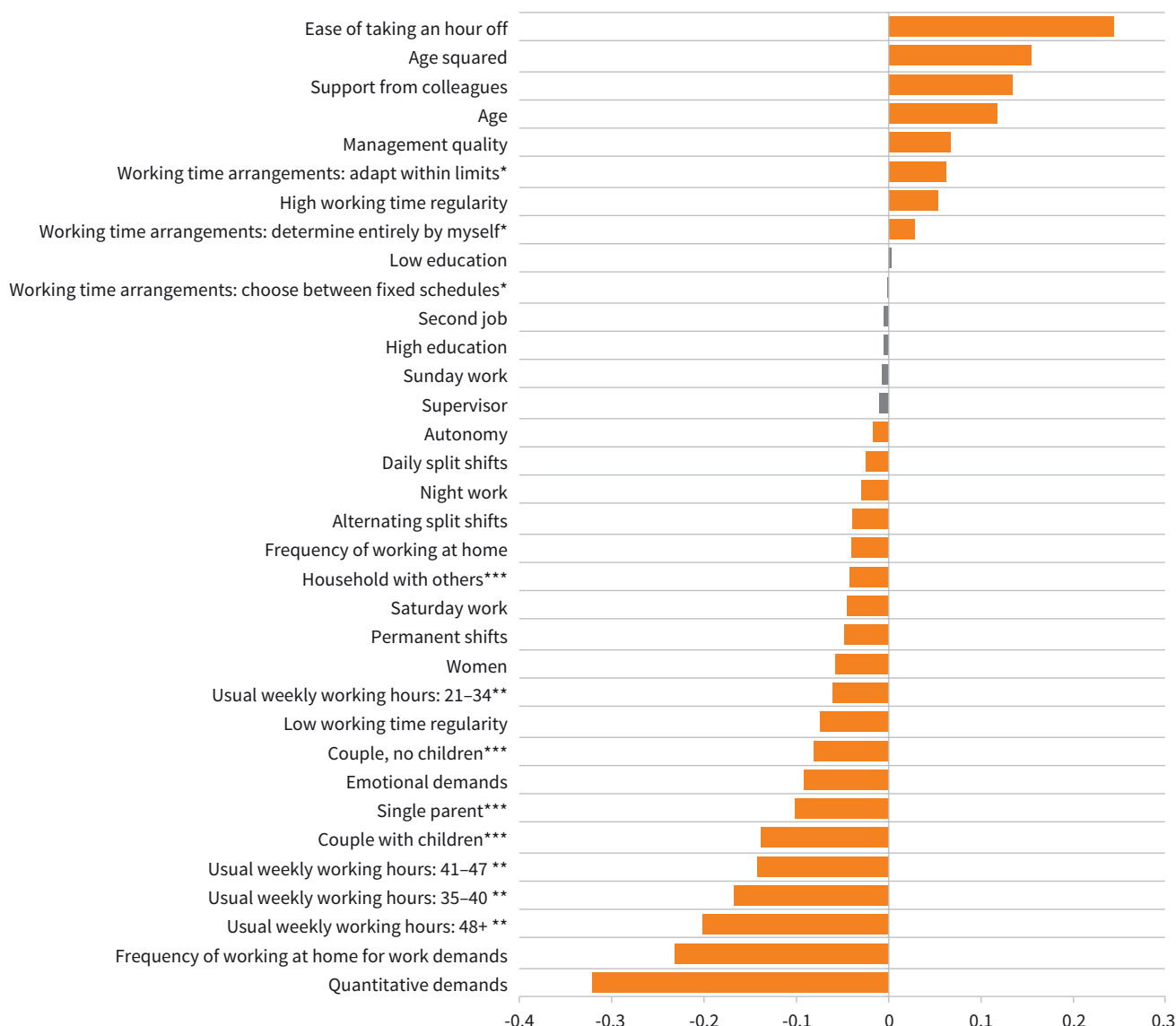


Note: Squares represent observed variables and ellipses represent latent variables measured through factor analysis.

The components described above are combined and structured in a model that postulates that working conditions and individual characteristics affect work–life balance, well-being and health (Figure 2). Simultaneously, work–life balance affects subjective well-being, and subjective well-being affects overall health. These elements affect attitudes towards the sustainability of the job. Modelling the effects of working conditions and individual characteristics in this structure allows for distinguishing between direct and indirect effects. For example, the effect of a certain working condition on general health may be direct, but may also be mediated through the effect on well-being. More information on the model specification, including technical details and output, can be found in the Annex.

The following sections show the results by dissecting the model into different components and presenting these sequentially. For analysing the effect of the characteristics of the job, the job quality framework is used (Eurofound, 2012d). Job quality is defined by those features of jobs that have a relationship with the health and well-being of workers. Because health and well-being are closely related to the concept of sustainable work, job quality is essential for sustainable work. Sustainable work goes beyond a particular job, while job quality focuses on the job that the worker currently holds. Eurofound has operationalised job quality indices, which summarise the quality of jobs on a more aggregated level (Eurofound, 2016a). The analysis in this report, however, goes more in-depth and focuses on the underlying indicators.

Figure 3: Effect of working conditions on work–life balance



Note: The figure shows standardised regression coefficients of the listed variables on work–life balance. Grey bars represent coefficients that do not differ significantly from zero ($p > 0.05$).

* Reference category: entirely determine working hours by yourself

** Reference category: 20 hours or fewer

*** Reference category: single

Work–life balance

A first important component of the model is the effects of working conditions on work–life balance. The construct of work–life balance is included in the model by combining – with factor analysis – several questions from the EWCS.

- In general, how do your working hours fit in with your family or social commitments outside work?
- How often in the last 12 months have you found that your job prevented you from giving the time you wanted to your family?
- How often in the last 12 months have you found it difficult to concentrate on your job because of your family responsibilities?

- How often in the last 12 months have you found that your family responsibilities prevented you from giving the time you should to your job?

The results of the analysis (Figure 3) show that the working conditions that have the strongest positive effect on work–life balance are the ease with which someone is able to take an hour or two off during working hours to take care of personal or family matters, support from colleagues, perceived management quality, and working time autonomy. The strongest negatively related working conditions are the level of quantitative demands (having enough time to get the job done, working at high speed, having tight deadlines, having the pace of work set by three or more determinants and being frequently interrupted in

a disruptive manner),¹ the frequency of working at home for work demands, and having more working hours.

Individual characteristics having a strong effect on work–life balance are age and household type. Work–life balance seems to improve with age and this effect is more pronounced at older ages (age squared). Couples with children and single parents have the worst work–life balance in comparison to other household types. Being a woman is negatively related to work–life balance, but despite this negative effect, work-life balance of women is overall better than that of men. This is because women tend to work less hours and men tend to work more atypical hours.

Subjective well-being

The second component of the model is subjective well-being. Conducting a factor analysis, subjective well-being is included by using the World Health Organisation’s Well-being Index (WHO-5), which assesses the following aspects: ‘positive mood’ (good spirits and relaxation), ‘vitality’ (being active and waking up fresh and rested) and ‘general interest’ (being interested in things).

Work–life balance shows the strongest association with subjective well-being (Figure 4). This shows that the variables that have an effect on work–life balance (Figure 3) also have an effect on subjective well-being. Reducing quantitative demands, for example, improves work–life balance and thus also improves subjective well-being. Quantitative demands have both an indirect and direct effect on subjective well-being (Figure 4). This means that quantitative demands decrease subjective well-being irrespective of the level of work–life balance, while simultaneously decreasing

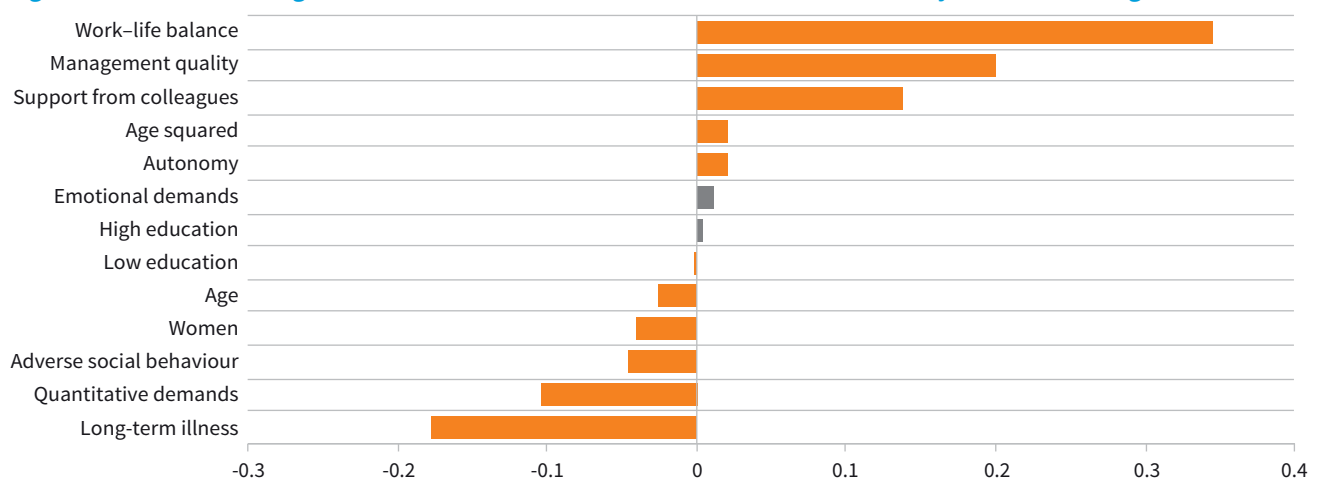
subjective well-being through work–life balance. Other important working conditions that have an effect on subjective well-being are quality of management, support from colleagues and experiencing adverse social behaviour (for example, bullying, intimidation, harassment). The most important individual characteristic with a negative effect is having a long-term illness.

Self-rated health

Following the general structure of the model (Figure 2), the next component is self-rated general health. Health is measured through a self-rated health question: ‘How is your health in general?’, rated on a five-point Likert scale. Single-item, self-rated health questions have been shown to be strong predictors of actual health (Idler and Benyamini, 1997; DeSalvo et al, 2006).

The strongest associations with self-rated health come from subjective well-being (positive), having a long-term illness (negative) and age (negative) (Figure 5). Because work–life balance has a positive effect on subjective well-being and subjective well-being a positive impact on self-rated health, it can be concluded that improving work–life balance improves self-rated health. Physical risks also have a negative effect on self-rated health. This latent variable is based on a range of questions on physical risks that can be classified into three types: ambient risks (extreme noise and temperatures); biochemical risks (breathing in or being in contact with biochemical substances); and posture-related risks (vibrations, tiring or painful positions, carrying or lifting heavy loads or people, and repetitive movements).

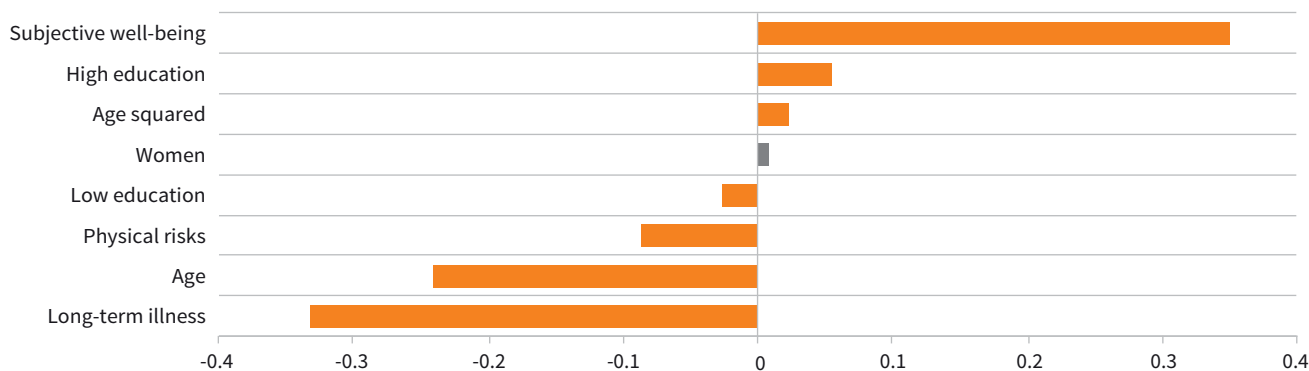
Figure 4: Effect of working conditions and individual characteristics factors on subjective well-being



Note: The figure shows standardised regression coefficients of the listed variables on subjective well-being. Grey bars represent coefficients that do not differ significantly from zero ($p > 0.05$).

¹ A number of factors can determine the pace at which one works, including direct demands from a boss or customers/patients/pupils, the speed of a machine, production targets or the work done by colleagues.

Figure 5: Effect of working conditions and sociodemographic factors on self-rated health



Note: Shows standardised regression coefficients of the listed variables on self-rated health. Grey bars represent coefficients that do not differ significantly from zero ($p > 0.05$).

Attitudes towards sustainable work

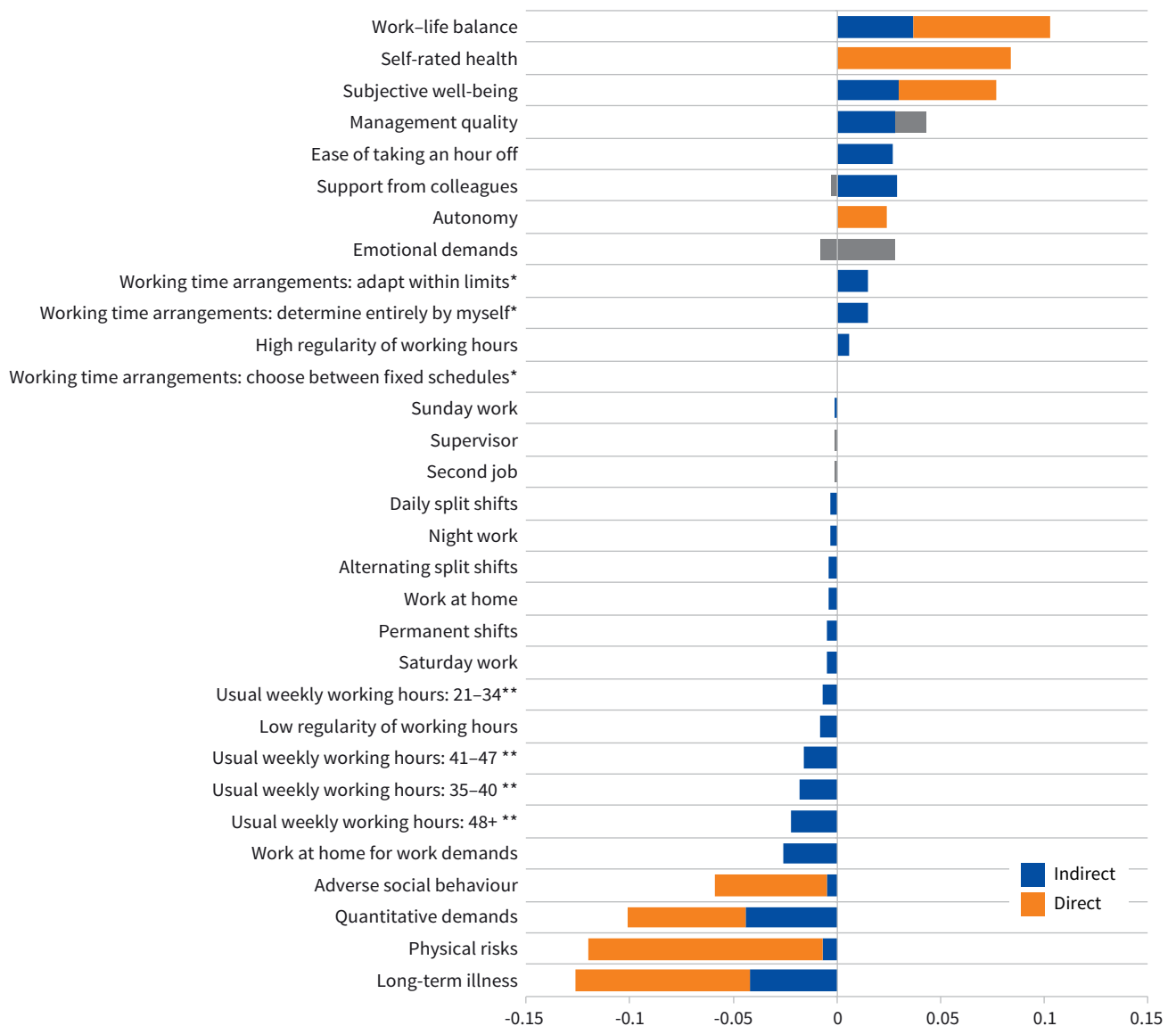
The final main component of the model considers the attitude towards sustainable work. This is measured by the question: 'Do you think you will be able to do your current job or a similar one until you are 60 years old?'. For respondents aged 56 or older, the question was changed to: 'Do you think you will be able to do your current job or a similar one in five years' time?'. Some 64% of the employees younger than 55 answered 'Yes', 26% answered 'No' and 9% were unable to answer the question. These percentages are nearly identical for the older group: 64% answered 'Yes', 25% answered 'No' and 11% were unable to answer the question. Because the share of respondents that were unable to answer the question is similar for older and younger workers, this might be an indication that the question is no more difficult to answer for younger people than it is for those who are older. Nevertheless, the answers to these questions reflect the perception of employees towards the sustainability of their job. Analysis of which aspects of the job contribute answering 'Yes' to this question sheds light on what workers think is important for them to be able to remain in work.

Figure 6 gives an overview of the effects of a number of different aspects of working conditions on being 'able to work' and thereby distinguishes between direct and indirect effects. A direct effect is a relationship between one variable and another without the involvement of other variables. For example, employees who have more quantitative demands in their work are more likely to think they will not be able to do the same job up to the

age of 60. Indirect effects of working conditions are those that are mediated through other variables. Quantitative demands directly influence attitudes towards sustainable work; in addition, employees with more quantitative demands are also, for example, more likely to report poorer subjective well-being (Figure 4). In turn, poorer subjective well-being increases the likelihood of not being able to work until the age of 60. Quantitative demands therefore have a direct and an indirect effect on being able to work (Figure 6). These processes can include multiple variables as well. For example, working more than 48 hours a week has a negative indirect effect on the attitude towards working until 60, because it has a negative effect on work-life balance; this in turn negatively affects subjective well-being and self-rated health. (For a full overview of the paths that the effects follow, see Figure A1 in the Annex).

The strongest effects on attitude towards job sustainability come from (in order): having a long-term illness; the level of exposure to physical risks at the workplace; work-life balance; quantitative demands; self-rated health, subjective well-being; experiencing adverse social behaviour; and management quality. To the extent that the attitude towards job sustainability is a good indicator for actual job sustainability, this shows that improving working conditions can enable workers to remain in employment for longer. Working conditions related to physical health are important (for example, physical risks), but many effects are experienced in the psychosocial domain. Individual outcomes such as subjective well-being, self-rated health and work-life balance are partially determined by individual characteristics, but also depend on working conditions.

Figure 6: Effect of working conditions on job sustainability



Note: The figure shows standardised regression coefficients of the listed variables on attitude towards job sustainability (defined as ‘able to work until 60 in current or similar job’). Grey bars represent coefficients that do not differ significantly from zero ($p > 0.05$).

* Reference category: entirely determine working hours by yourself

** Reference category: 20 hours or fewer

Prospects

A separated analysis has been carried out in relation to working conditions and outcomes related to prospects. These aspects are very much related to contextual factors of the labour market.

The perceived ability to work until the age of 60 may fluctuate based on the perceived security and stability of one’s job. An employee may suspect that their occupation does not offer prospects for career progression or that their line of work may be rendered obsolete within a decade, altering assessments of job sustainability. Taking a cue from the literature review, the final step of this analysis evaluates the effects of participation in training and type of contract on prospects. This is considered here because, as the research points out,

access to training and learning is key to sustaining employees’ skills and abilities, particularly in relation to employees at the latter stages of their careers.

A simple regression model measuring the impact of training finds significantly positive effects on the job security, career prospects and employability of workers, controlling for gender, age, occupation, sector and country. This underlines the importance of employer-sponsored training as a component of working conditions that supports employees’ career prospects, job security and employability – and, by extension, positive attitudes towards job sustainability. In relation to the type of contract, temporary employment is associated with job insecurity, and, although the relationship is a weak one, negatively associated with career prospects.

Caveat

The model presented above shows associations between characteristics of the job and the individual with self-rated health, well-being, work–life balance and attitudes towards job sustainability. It hypothesises a set of causal assumptions, but causality cannot be tested given the cross-sectional nature of the data. The relationships between the variables should therefore be interpreted as associations; these associations do not disprove the causal assumptions in the model.

Some variables relating to working conditions in the model are about risks. For example, the exposure to physical risk measures variables such as the frequency of engaging in heavy lifting, the use of chemical substances and exposure to high temperatures. Continuous exposure to risk may lead to an accumulation of detrimental effects or may increase the risk of accidents. The effects of risks, as estimated by the model are therefore cumulative and likely to increase over time.

Another important caveat is the so-called ‘healthy worker effect’, a selection effect that arises in the following circumstances.

- ‘Unhealthy’ workers exit the labour market before retirement age and therefore are not present in the sample, resulting in an underestimation of the effects because the workers most strongly affected by their working conditions are no longer accounted for.
- ‘Unhealthy’ workers find jobs or adapt their workplace to their needs, also leading to an underestimation (or in the most extreme cases, a reverse of the effect) because these ‘unhealthy’ workers are more likely to be found in jobs with good working conditions, so leading to the false conclusion that improving working conditions has a negative effect on health.

Although these selection effects are commonly referred to as the ‘healthy worker effect’, they are not limited to health. There are many reasons other than health why workers would exit the labour market or adapt their workplace to their needs. For example, workers who cannot combine work with caring for relatives may exit the labour market, whereas those who are able to combine work and care for relatives remain in the labour market. This would lead to the false conclusion that combining work and care is not a problem for older workers.

Summary

Relationship between working conditions, outcomes and sustainable work

Chapter 1 introduced the concept of sustainable work as a lens through which it is possible to understand the influence of individual, workplace and institutional characteristics and circumstances on employees’ ability and willingness to pursue extended working lives. Based on a review of the existing literature, this chapter has identified the primary factors emerging from these spheres of life.

- Education, health status and care responsibilities are most influential at the level of individual characteristics and circumstances.
- Extrinsic and intrinsic rewards, working time and job quality matter in the workplace.
- Retirement schemes, labour market policies and social norms shape the institutional context.

From this collection of factors, the chapter proceeded to test how specific working conditions contribute to sustainable work. This entailed the introduction of a structural equation model that accounts for the different dimensions of sustainable work considered the key outcome variables for this study: health, well-being, work–life balance and the perceived ability to work until the age of 60 (or, attitude towards sustainable work). Using data from the EWCS 2015, this chapter analysed the effects of working conditions on these critical components of sustainable work.

This approach finds that quantitative demands and physical risks at work, as well as the health status of the individual, are strongly associated with outcomes in health, well-being, work–life balance and the ability to work until 60. Moreover, participation in training is positively associated with employees’ career prospects, which can be said to support their attitudes towards job sustainability. Chapter 3 takes this analysis further by measuring the incidence of these factors across age groups.

3 | Working conditions of employees at different ages

3 Working conditions of employees at different ages

This chapter describes the working conditions of employees at different ages. Because the figures in this chapter are based on the EWCS 2015, a cross-sectional survey, age effects and birth-cohort effects cannot be distinguished. In other words, some of the patterns across age might be recurring for future generations, while other patterns might reflect differences between birth cohorts.

As the analysis focuses on working conditions in relation to working until retirement age, only employees are selected. Employees' work experiences generally differ from those who are self-employed throughout their working life, based on both the condition and nature of their work and different policy schemes addressing retirement and benefits.

To begin this chapter, a life-cycle perspective is integrated under the conceptual framework of sustainable work. This is rooted in the idea that working conditions differ across ages, which demands that specific attention be paid both to the factors that most affect individuals at different periods of working life, and to the resulting experiences across age groups. Furthermore, where relevant, the analysis will account for how men and women differ in their working experiences over the life course. With this in mind, this chapter investigates the working conditions and sustainable work outcomes for workers of different ages, with the aim of identifying distinct factors that improve or inhibit a sustainable working life.

Understanding work from a life-cycle perspective

Working conditions are fundamental to sustainable work and participation in the labour market. Some work-related factors appear to be relevant regardless of the age of the worker (for example, a good physical environment), whereas others play a greater role for the sustainability of work for a particular age group or phase in the life course (for example, flexible working hours for older workers, as illustrated in Table A1 in the Annex).

It is important to bear in mind that – from the life-cycle perspective – experiences in all age groups are important for sustainable work: the experiences of workers in the age group 45–55 may be pivotal to the ability and motivation of workers at later ages and until retirement. The analysis therefore focuses on working conditions of workers of different ages with an eye towards their cumulative effects, and pays special attention to working until retirement age.

The study focuses on working conditions, and a statistical analysis of the EWCS 2015 is carried out to identify factors that contribute to sustainable work. By inspecting these factors and their effects on health and well-being, work-life balance, and skills and prospects, it is possible to evaluate workers' ability to work at different ages and (to some extent) their motivation to work until retirement age.

Preliminary analysis of working conditions by age shows that there are three main stages over the life course: younger workers starting their working lives and having first experiences at work; workers who have children and/or who experience greater job demands; and finally workers of an age that offers legal opportunities to retire or to cease working for other reasons (normally after 55 years). Considering these stages, the analysis sets the following age boundaries: the first group comprises those younger than 35 years of age, the second group is divided between the age groups 36–45 and 46–55, and the third group comprises workers older than 55. It is acknowledged that in the real world, there are workers with children in the group aged under 35, but most workers with children tend to fall into the middle age group (36–45). Some of the differences are related to national, social and cultural norms. Since this chapter covers all employees in the EU, indicators will be shown for specific ages, thus treating age as a continuous variable.

Differential effects of age

Working conditions have the potential to affect health, mental well-being and work-life balance. In turn, these factors can determine the extent to which a job is sustainable. Chapter 2 showed that these associations are visible in the data from the EWCS. However, are these associations the same for employees of different ages? Certain working conditions may be more beneficial (or detrimental) to sustainable work for older employees when juxtaposed with younger employees.

By differentiating associations by age in regression models, this question can be put to the test. For example, Chapter 2 showed that physical risks are negatively associated with a subjective assessment of overall health. The regression results in Table 1 also show an association between physical risks and this subjective assessment of health, as well as with the question: 'Does your work affect your health?'. Also, subjective health deteriorates with age and those older than 35 are more likely to state that their job affects their health negatively than those below 35. However, the combination of physical risks and age – the 'interaction effect' – is not significantly different

Table 1: Interaction effects between age and selected working conditions

	Working condition	Estimator	Association		
			Age	Working condition	Interaction
How is your health in general?	Physical risks	Ordered logit	✓	✓	×
Work affects job negatively	Physical risks	Multinomial logit	✓	✓	×
Mental well-being (WHO-5)	Quantitative demands	Ordinary least squares (OLS)	✓	✓	×
Work–life balance	Working hours	Ordered logit	✓	✓	×
Might lose my job in six months	Contract type	Ordered logit	✓	✓	×

between the age groups. This shows that the association of physical risks and health does not change with age. In other words, these analyses show no evidence that this association is stronger for certain age groups.

The same applies to the results of other regressions: quantitative demands (working at high speed, having tight deadlines) are negatively related to mental well-being, and mental well-being differs significantly between the age groups, but there is no evidence for added effect from the interaction of the two. Also, working hours and age are related to work–life balance, but not their interaction. Finally, the same applies to the association between the contract type and the likelihood of losing one’s job in the next six months. Table 1 details these results.

The regressions in the structural equation model (Chapter 2) can be differentiated by age groups. For the four regressions embedded in the model (work–life balance, well-being, health in general and the ability to work until the age of 60), a differentiated model does not prove to be a better fit than the model that does not differentiate by age. This indicates that there is no statistical evidence that the associations predicted by the model differ by age.

Do these findings mean that improving working conditions will have the same effect for all age groups? Not necessarily: because the EWCS is a cross-sectional dataset, employees of different ages are compared at a certain point in time. As employees grow older, they may switch jobs, try to change the working conditions in their current job, or leave the labour market altogether. These selection effects could result in a situation where those employees who are more sensitive to particular working conditions (such as physical risks) are not likely to be found in jobs with those working conditions. Clearly, such selection effects may obscure the results. Also, any difference in associations between age groups may be too small to be picked up in the survey’s limited sample. Finally, the EWCS data do not reveal whether workers have accumulated effects of exposure to certain working conditions over time. This is technically not an age effect; rather, older workers are more likely to have accumulated risks simply because they have worked for longer.

Working conditions across age groups

Having established that the impact of certain working conditions is not differentiated by age, this chapter will describe the trends and trajectories of working life for employees of different ages. The conditions under scrutiny for this section are those that were found to be strongly associated with sustainable work outcomes in Chapter 2. The incidence and prevalence of these conditions across age groups will be accounted for and then measured against the corresponding outcomes in health, well-being, work–life balance, and skills and prospects.

Please note: the charts in this chapter cover employees aged 20 to 70, but the number of people employed is not equal across ages. In particular, those aged 65 and older represent a smaller group and charts may show strongly deviating patterns as a result of the specific characteristics of this group and/or the smaller number of respondents in the sample.

Physical risks

Employees are having to remain in their jobs for longer due to demographic changes, rising pension ages and limited access to early retirement options (EU-OSHA et al, 2017). This leads to heightened exposure to possible risks in the workplace and, therefore, to the risks of developing occupational injuries or having one’s health and well-being affected by demanding work. These challenges normally arise as a consequence of a long working career, being exposed to risk factors and simply getting older. A cross-national study exploring the links between working conditions and health, based on data from SHARE, indicates that the accumulation of physical and psychosocial constraints at work has a negative influence on health and is also associated with early retirement as a result of ill-health. High physical workload is also a significant predictor for disability retirement (Pohrt and Hasselhorn, 2015).

It is important to note that a growing incidence of work-related mental conditions has been observed, and as well as increased absence from work and early retirement due to mental illness in most European countries (European Framework for Action on Mental Health and Well-being, 2016).

Health status is one characteristic that is directly linked to being able to work and one of the reasons for stopping work altogether. Depending on the job content, certain health conditions are relevant in terms of being able to perform certain tasks. The physical and social work environment plays an important role in an individual's health and well-being, and the impact of work on health tends to accumulate, with negative consequences mostly arriving in old age. Therefore, certain conditions at work can influence the ageing process in relation to the health of the individual.

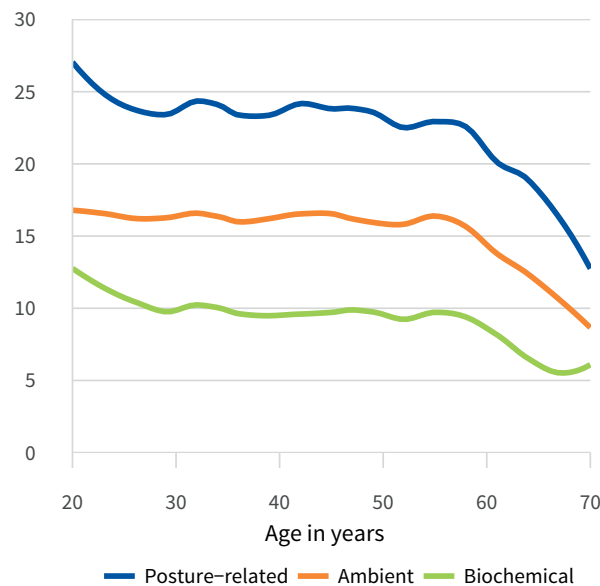
A crucial condition for sustainable work is the physical environment in which employees are situated, as it is strongly associated with health indicators. The EWCS includes a range of questions on physical risks – ambient, biochemical and posture-related. These risks are classified into indices ranging from 0–100; incidence of exposure to them by age is shown in Figure 7.

Physical risks are greatest for employees in their early 20s and decrease only gradually for older employees. It is likely that physical risks are heavily determined by occupation and are less likely to alter for age groups. Nonetheless, the broad decline after age 55 signals that employees who are working beyond age 55 are those who are less exposed to physical risks.

Quantitative demands

An important element of work intensity is quantitative demand, that is, work characterised by working at high speeds and to tight deadlines. The EWCS has several measurements that could be considered quantitative demands; several of them have been included in the analysis in Chapter 2. Figure 8 shows the share of

Figure 7: Physical risks by age (index 0–100)

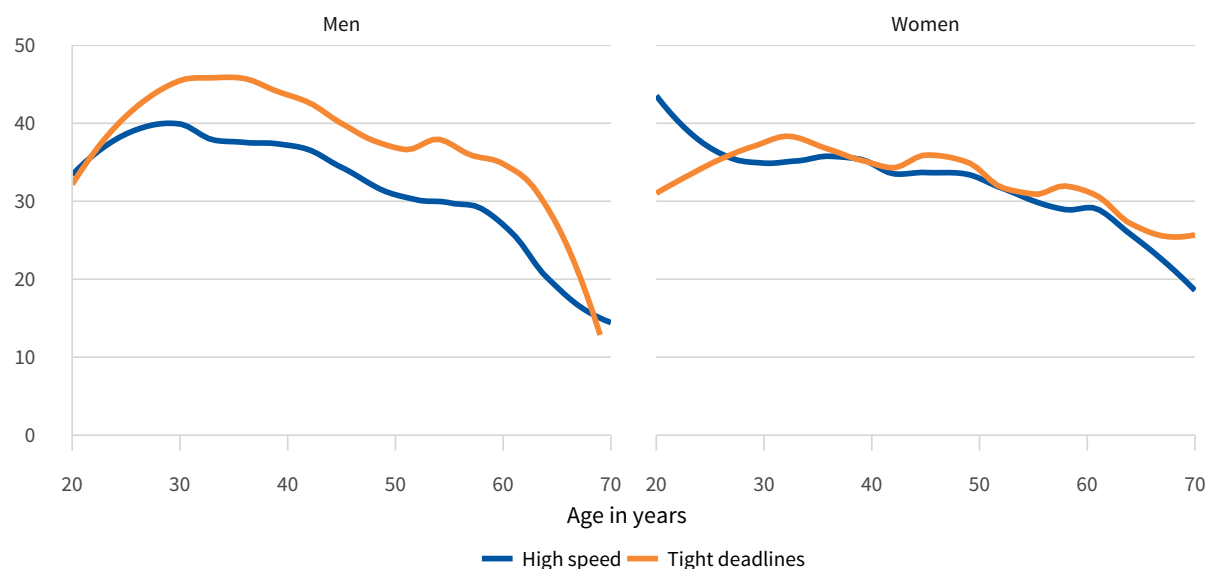


Source: EWCS 2015

employees who work at very high speed and to tight deadlines at least three-quarters of the time or more.

Working at very high speed and working to tight deadlines is less common among older employees. Over two-thirds of men and women work at very high speed at the age of 30; by the age of 60, however, quantitative demands are less frequent for most employees. Men generally work more often to tight deadlines, but both men and women are less likely to experience quantitative demands at older ages.

Figure 8: Quantitative demands by age (%)



Adverse social behaviour and discrimination

Adverse social behaviour in the workplace has a detrimental effect on health and well-being, and is also associated with increased staff turnover and increased absenteeism. In the EWCS, employees are asked whether they have been subjected to verbal abuse, unwanted sexual attention, threats or humiliating behaviours in the previous month. It includes questions about exposure to physical violence, sexual harassment, or bullying and harassment. Figure 9 shows the share of employees that has been exposed to any of these behaviours.

For both men and women, adverse social behaviour is most common at a younger age. Up to the age of 35, a higher percentage of women report adverse social behaviour than men. This is mostly driven by a greater incidence of unwanted sexual attention, humiliating behaviour and sexual harassment.

EU legislation prohibits discrimination on the grounds of age (European Council, 2000). Overall, discrimination on the grounds of age is very rare: roughly 3% of employees in the EU report experiencing age discrimination in the 12 months prior to the survey. Figure 10 makes it clear that age discrimination is, unsurprisingly, an age-specific phenomenon. Among younger employees, age discrimination is more prevalent than in other age groups: over 10% for the youngest employees. Being discriminated against for being too young becomes less likely after the age of 35, but transforms into being discriminated against for being too old after the age of 50. At the age of 60, roughly 7% of employees report discrimination on the basis of their age.

Figure 9: Share of employees experiencing adverse social behaviour by age (%)

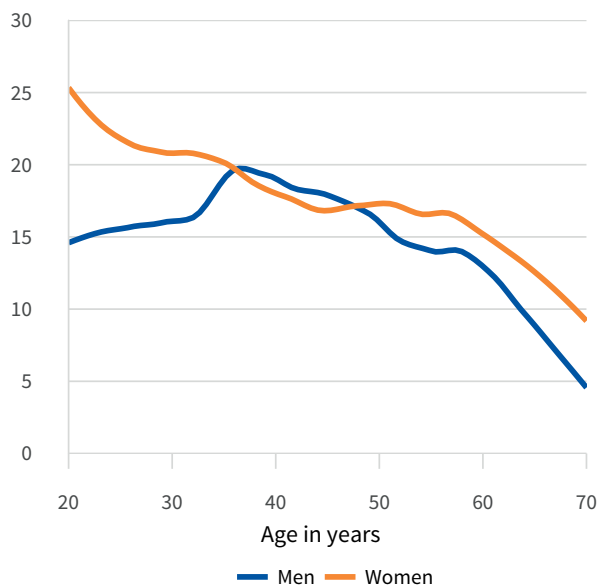
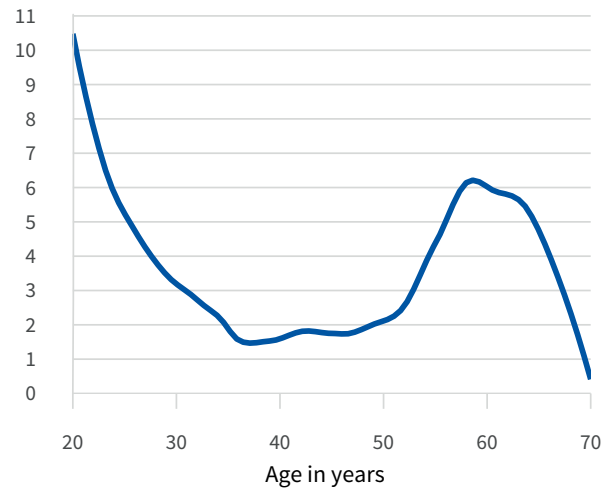


Figure 10: Share of employees experiencing age discrimination in the past 12 months by age (%)



Social support and management quality

Chapter 2 showed how support from colleagues has a strong positive impact on work-life balance and subjective well-being, and indirectly on the attitude towards being able to work up to the age of 60. Throughout the life course, over 70% of employees report that their colleagues help and support them always or most of the time. The equivalent figure for support from one's manager is slightly lower – dipping to 60%. The incidence of social support is highest for younger employees but otherwise there is little variance across age. The quality of management – as measured by an index that combines several indicators – is another variable that is shown to be important for job sustainability in this chapter. Data reveal a similar pattern as that for social support, perceived managerial quality remaining stable across age groups. One of the items of the management quality index is the statement: 'Your immediate boss encourages and supports your development'; employees aged under 35 answer 'Yes' to this slightly more often than employees aged 35 and over.

Working time duration

Working hours determine the amount of time employees are exposed to risks at work which may have a multiplying effect on the relationship between risks and outcomes such as health and well-being. Additionally, the analysis in Chapter 2 showed that working more hours has a negative effect on how employees perceive their work-life balance.

Figure 11 displays the number of usual weekly working hours.² The EU’s Working Time Directive requires countries to guarantee a limit of 48 weekly working hours on average (European Parliament and the European Council, 2003); however, 11% of employees in the EU28 report working week of 48 hours or more. This is more prevalent among men than women (16% as against 6%) and only slightly lower at older ages.

Working hours are longest during prime working age, from the late 20s until the mid-50s. Within that period of working life, paid hours are consistent across age groups for men, while older women demonstrate a greater likelihood of working between 21 and 34 hours per week. For both men and women aged 55 and older, working hours are significantly shorter.

Eurofound (2017) includes a comprehensive analysis of working time patterns in the EU and also finds that working hour preferences differ for men and women, with men seeking to work fewer hours while women would prefer to work more. Particularly during the parenting phase of their life, men would like to reduce their hours. This is also reflected in Figure 12, which charts the share of employees who would like to reduce, increase or keep the number of hours they currently work. For both men and women, the proportion of employees wanting to decrease their working hours increases with age, while the share wanting to increase their working hours decreases. Employees aged 55 and older are more likely to be content with their current weekly hours.

Figure 11: Employees’ usual weekly working hours in main job by age (%)

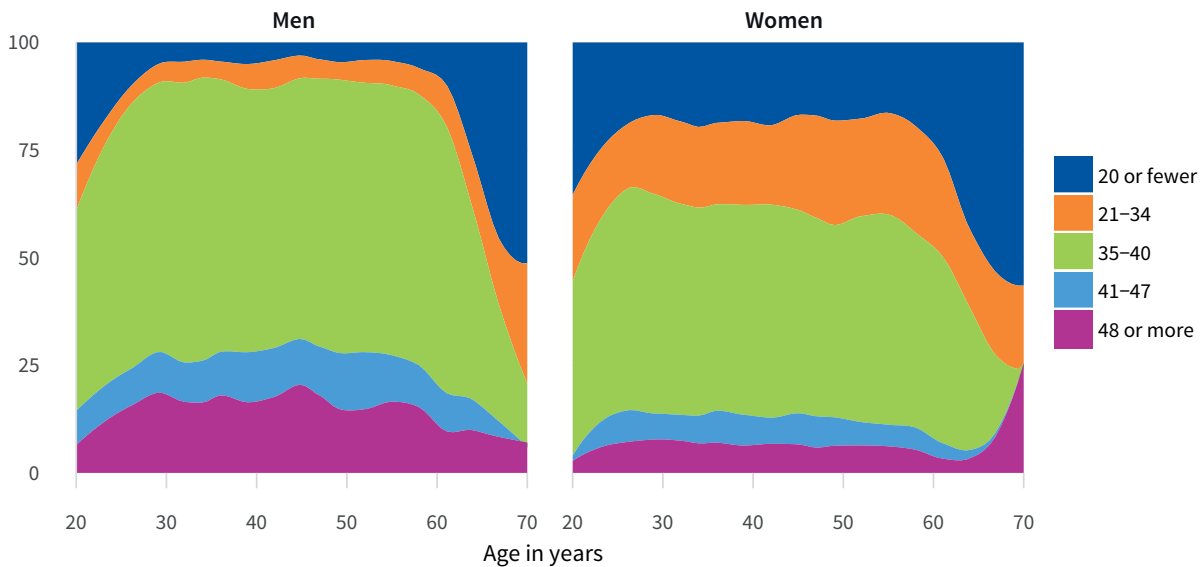
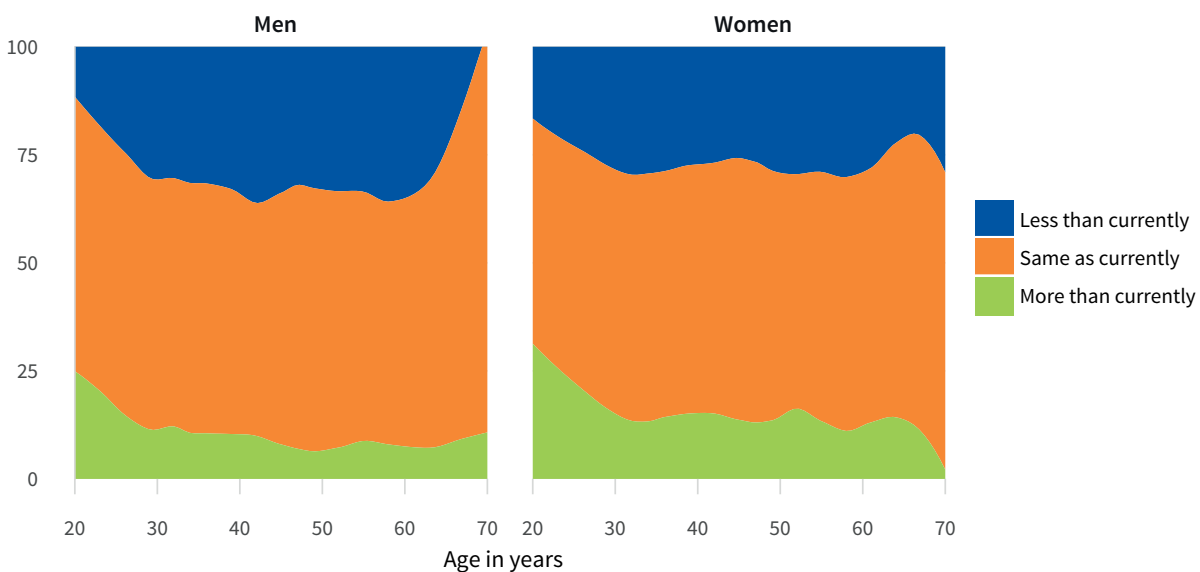


Figure 12: Employees’ preferred weekly working hours by age (%)

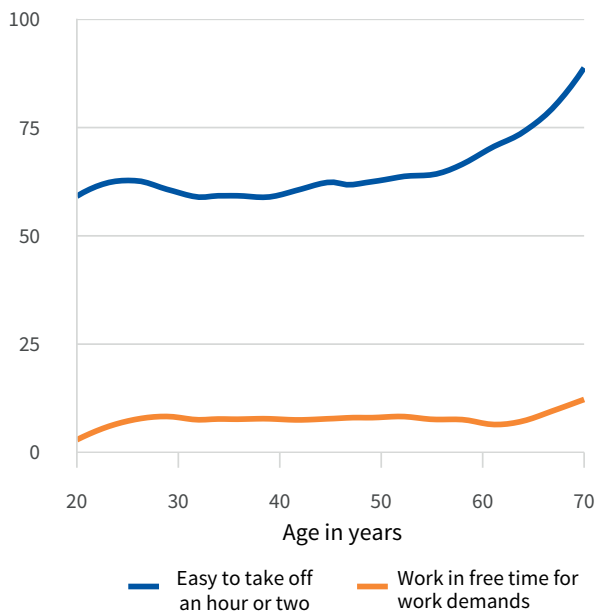


² The differences in weekly working hours reflect broader differences in labour market participation by age and gender. According to Eurostat data, employment rates are highest between the ages of 30 and 55 and are generally higher among men than women.

Working time flexibility

Flexibility of working time may alleviate problems employees face in balancing their work and private life. The analysis in Chapter 2 showed that small measures towards flexibility can go a long way: employees reporting that it is easy to take an hour or two off during working hours to take care of personal or family matters are much more likely to have a good work–life balance than those who find it difficult. Figure 13 shows that arranging an hour or two off is easy in the majority of cases, and that older employees are more likely to report this. This is especially so for employees above the age of 60, who are more likely to benefit from flexible working time arrangements.

Figure 13: Employees’ working time flexibility by age (%)

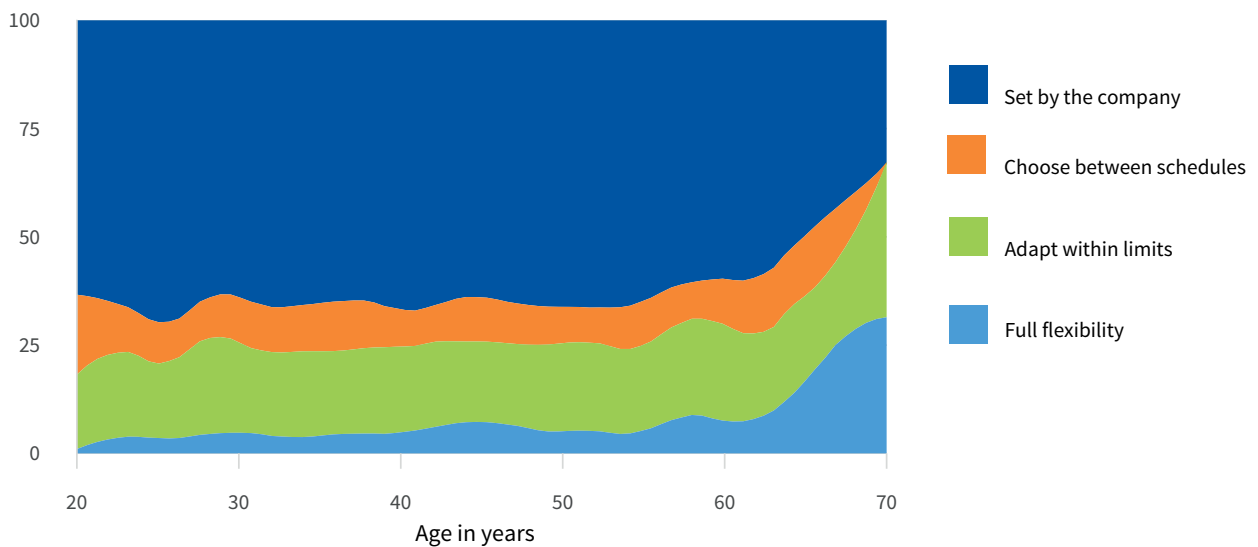


Another important indicator is the extent to which employees work in their free time to meet work demands. Obviously, this has a detrimental effect on how employees perceive their work–life balance. Fortunately, frequent work in free time to meet work demands (daily or several times a week) is generally uncommon. The share of employees doing so is slightly higher for employees between their late 20s and their mid-50s.

The degree of working time flexibility enjoyed by employees is often determined by company policy. Figure 14 shows that roughly two-thirds (64%) of employees in the EU28 have virtually no flexibility, working time arrangements being set by the company with no possibility of change. About 20% can adapt their working hours within certain limits (for example using flexitime), 10% can choose between several fixed working schedules determined by the company and 7% can completely determine their working hours themselves.

Working time arrangements are mostly constant until the age of 55, at which point the share of employees with full flexibility increases substantially. This might indicate that remaining in paid employment instead of retiring (early) for some share of employees is conditional on having more working time flexibility.

Figure 14: Employees’ working time arrangements by age (%)



Skills and training

The recently adopted New Skills Agenda for Europe raises political awareness of the critical importance of skills and emphasises that acquiring and developing skills is a lifelong process (European Commission, 2016). It launches a number of actions to ‘make the right training, skills and support available to people in the EU.’

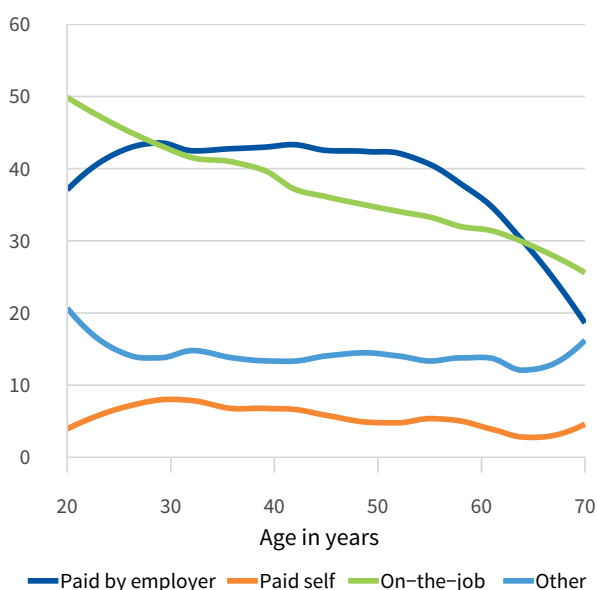
As concluded in Chapter 2, participation in training is associated with positive returns to prospects and employability. When employees are given the chance to participate in training from their employer, perceived job security, career prospects and employability can significantly improve. These three aspects influence the ability and the motivation to work; they are also quite sensitive to the age of the employee, as indicated in the relevant literature. Figure 15 examines participation in training by age, categorising the type of training based on whether it was conducted or funded by the employer (including on-the-job training), or whether the employee funded the training themselves.

Broadly speaking, participation in on-the-job training is less common among older employees. It is likely that young employees need more training in order to adapt to new environments in the workplace, and that as employees age they gain greater confidence and control over the tasks due to experience. Older workers who are given opportunities to learn new skills and/or those who participate in training tend to stay longer with their employers. Moreover, of all age groups, it is older employees who are least likely to report ‘learning new things’ on the job. For the indicators of other types of training, the age differences are not particularly discernible.

Working conditions: review

This initial overview provides a picture of the differentiated work experiences of employees of different ages. Findings generally underscore the observation that younger employees are more likely to report high physical and quantitative demands at work, while older employees tend to report greater autonomy and flexibility. Additionally, it is worth differentiating employees by gender when considering their experiences of adverse social behaviour, as the study points to acute problems facing women at both younger and older ages. Given this varied picture of working conditions across age groups, similar age-related discrepancies in factors related to work outcomes can be expected. The following section brings to light observations on the differences among age groups in terms of key sustainable work outcomes: health and well-being, work–life balance, and skills and prospects.

Figure 15: Employees’ participation in training by age (%)



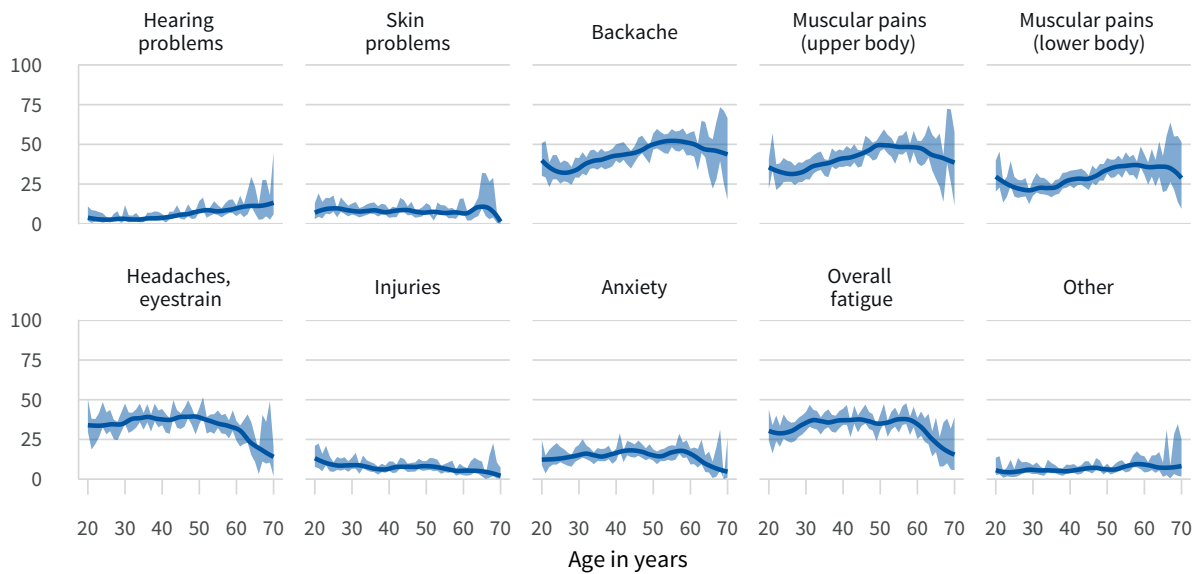
Sustainable work outcomes across age groups

In the analysis of factors related to work sustainability, three areas are identified: the health status of the worker; work–life balance; and aspects related to career prospects. As the literature review in Chapter 1 and the statistical findings in Chapter 2 make clear, these factors are crucial to employees’ motivation and ability to work throughout the life course.

Health and well-being

Drawing from the EWCS 2015, the health status of workers at different ages can be assessed using different indicators. One of the most reported illnesses associated with work is musculoskeletal disorders (for example, muscular pains and backache). Figure 16 indicates that this health condition is increasingly reported among older employees, up to the age of 60. After this age, the share of workers reporting this condition declines, which can be attributed partially to the drop in the share of workers exposed to highly demanding physical activities after their mid-50s and up to the age of 60, or to the selection effect referred to in Chapter 2, by which those workers with health conditions leave the labour market. The selection effect related to the health of workers is confirmed by the fact that there is also a significant drop for eyestrain and headaches after age 55.

Figure 16: Incidence of health-related problems in the last 12 months by age (% of employees)



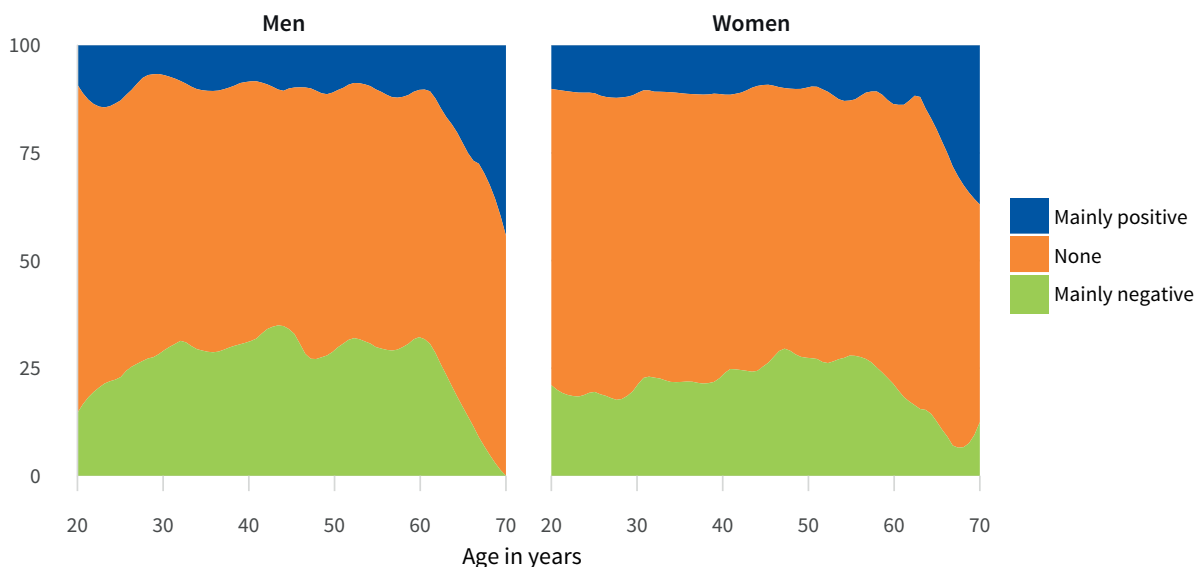
Note: Shaded area shows 95% confidence interval.

The available proxy indicators related to mental health produce a similar, though less pronounced, pattern. Indicators such as reporting anxiety (during the last 12 months) are more prevalent among employees between 40 and 50 and near to 60 years-old, whereas the more general index of subjective well-being (WHO-5) shows that well-being is somewhat poorer for those aged 50 or older. Therefore, from the EWCS data, it can be concluded that general health and musculoskeletal disorders are age-related, increasing in frequency for older employees, whereas mental health indicators suggest a less strong

relation with the age of the worker. One symptom related to both mental and physical health issues could be sleeping disorders, which also become more prevalent after the mid-40s.

The previous section discussed several working conditions that can risk the health of employees. Do employees therefore report these effects differently by age? Data indicate that the perceived negative impact of work on health is more common among older employees (Figure 17).

Figure 17: Impact of work on health by age (% of employees)



While this is a subjective valuation, a more objective indicator – absenteeism due to health problems caused or made worse by work – presents a clear linear increase with age, suggesting both that older workers suffer worse health status and that for this reason they might be at greater risk of experiencing a negative impact of work on health. As in the case of other health-related indicators for the working population, the share of workers in this condition declines after 60 years of age, due to the change in exposure to health risks at that age – especially to physical risks.

Finally, the cumulative effect should not be ignored. As an example, high levels of job strain (that is, the combination of high intensity and low control) among younger employees – if maintained throughout working life – can result in negative health consequences at older ages, potentially obliging workers to exit the labour market prematurely.

In summary, general health and physical health are clearly worse for older workers, which suggests that health could be a matter of cumulative strain over time, given the relatively stable conditions in social support and management quality across age. However, older employees (aged 60 and over) report fewer health problems, such as musculoskeletal disorders. This is likely due to the selection effects as previously noted, but can also be partially explained by their lower frequency of exposure to posture-related risks. Indicators related to mental health show only a slightly higher incidence for older employees. Some psychosocial risks are more prevalent from 30 to 45 years and decline only to some

extent among older workers. Findings suggest that older workers are also more likely to experience the impact of working conditions on health.

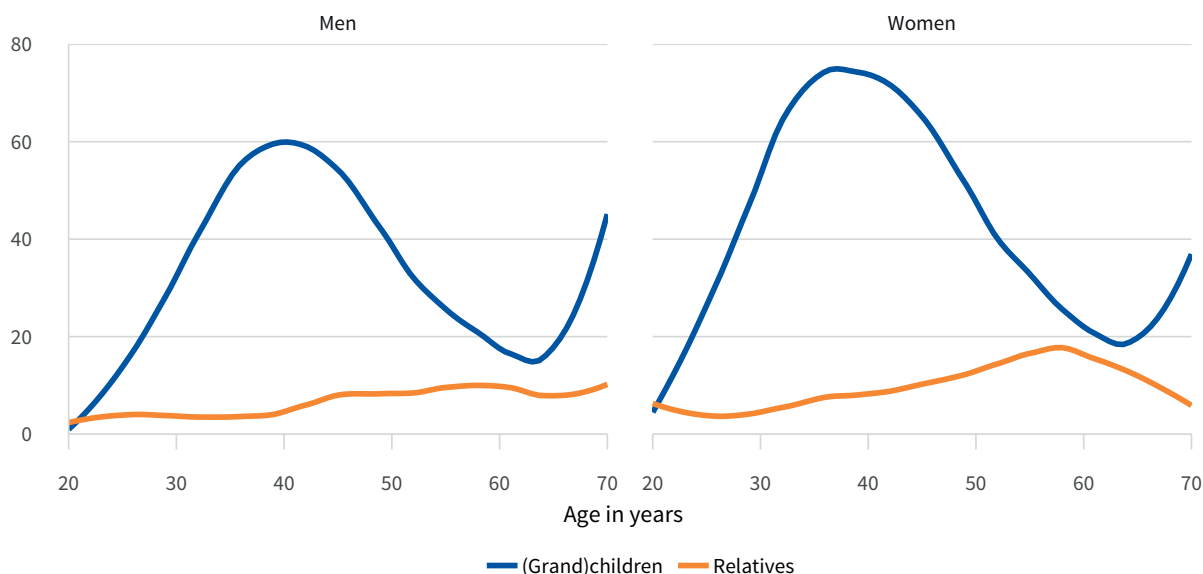
Work-life balance

To encourage participation in the labour market and to enable those already working to continue, it is essential that workers are able to balance their working and non-working lives. Work-life balance becomes a particularly urgent issue against the background of an ageing population, especially given the attendant care needs and a desire to work fewer hours in order to protect health at older ages.

As Figure 18 demonstrates, caring responsibilities are concentrated in the prime age group of workers. More than 50% of employees in the 30–50 age group care for children. The share of employees caring for elderly and disabled relatives increases with age, to more than 11% of employees after the age of 40.

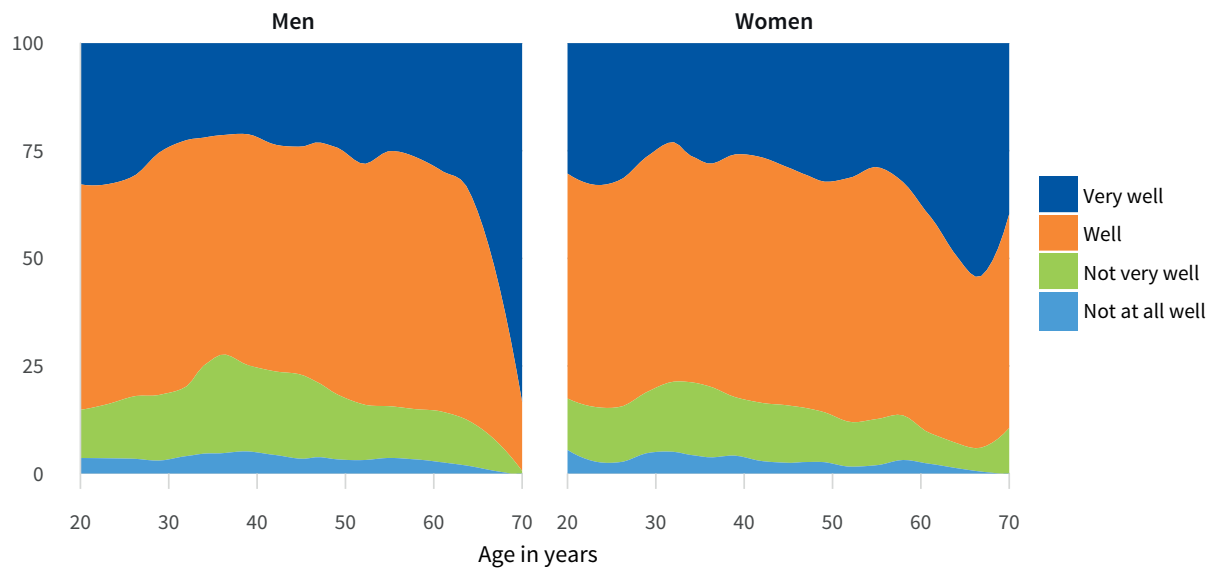
It is also expected that employees in the 30–50 age range will face more problems in reconciling work and non-working life because of family commitments. For employees in this age range, there is a relatively greater incidence of reporting poor work-life balance – more than 20% (Figure 19). The situation for older groups is better. However, the literature shows that working part time and having working time flexibility are crucial aspects for participation by older workers in the labour market. The EWCS data find that 15% of workers aged 55 do not report a good work-life balance.

Figure 18: Caring for (grand)children or other relatives by age (%)



Note: Figures are the proportions who report doing this at least several times a week.

Figure 19: Employees' perception of their work-life balance by age (%)



Note: The figure shows the percentage of respondents reporting that their work life and personal life fit well together.

More accommodating working time arrangements and a good social environment can help workers balance the dual demands of life in work and out of it. In Chapter 2, employees' flexible working time (for example, the opportunity to take an hour off or the possibility of adapting one's working hours) was found to be associated with improved work-life balance. The groups most sensitive to this component are those of prime age (36–45) and older workers (55 and over). Looking at aggregate data, there is a marginally higher share of older workers who report opportunities to access flexible working time. This could support the conclusion that employees who remain in the labour market at older ages place greater value on work-life balance and flexible working arrangements, since those who are still working at this stage are far more likely to benefit from such aspects.

Having support from colleagues in the workplace also has a positive effect, whereas a high level of quantitative demands and needing to work from home has a negative effect. High levels of demands are somewhat more prevalent among employees in the 30–45 years age group; as mentioned above, a lack of social support from both colleagues and managers is found to be more prevalent among older workers.

In summary, work-life balance problems seem to be strongly associated with having caring responsibilities. It is between the ages of 30 and 45 that workers report

higher levels of conflict between work and other activities. It is also the period of time when job demands are more frequent. A lower share of employees experience work-life balance problems at older ages. However, for older employees, having such conditions such as flexible working time or fewer hours is crucial in motivating them to continue working. Some selection effect might also be playing a role, since only employees with a good quality of working time might continue working beyond the moment when the first opportunity to retire arises.

Prospects

Work is more sustainable when employees have the right skills to cope with the job and when they have opportunities to develop those skills. This is especially relevant in the light of changes to the competencies required for a job – for example, as a result of technological or organisational changes in the workplace. Although differences are not vast, the EWCS 2015 indicator, 'I need further training to cope well with my duties', shows a higher proportion of employees in this situation in younger age groups. Interestingly, just before the age when employees start retiring (in the age group 50–55), the share begins to rise again. Therefore, the perceived need to engage in further training arises when individuals first start work and slowly declines with age. It is possible that an uptick among employees in their early 50s is due to a perceived need to update their skills.

The share of temporary contracts over the life course (Figure 20) does not follow the same pattern as the percentage of workers reporting job insecurity (Figure 21), which is an indication that different elements play a role at different ages in terms of levels of job insecurity. It could be, for example, that older workers are relatively less comfortable with temporary contracts or that there are aspects of the job or their future that can make them feel more insecure at an older age – access to a pension, difficulties in finding another job, and so on. (The apparent sharp rise in temporary contracts held by people older than 60 could be due to the smaller number of cases in that age group.)

The other aspect related to maintaining or having a job considered within this area of prospects is employability (the ability of a worker to find another job if they lose their current job). This aspect of prospects presents a clear linear relationship with age: the younger the worker, the stronger the perception of being able to find a similar job easily. This perception declines with age, as shown in Figure 21. (The apparent sharp rise in perceived employability after age 60 may similarly be due to the small number of cases after this age or a to a selection effect by which only workers with good employability continue working after the age of 65.)

Figure 20: Temporary contracts by age (% of employees)

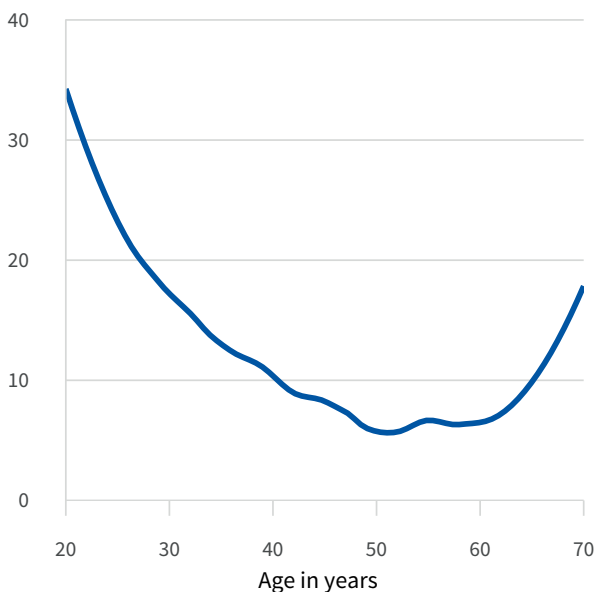
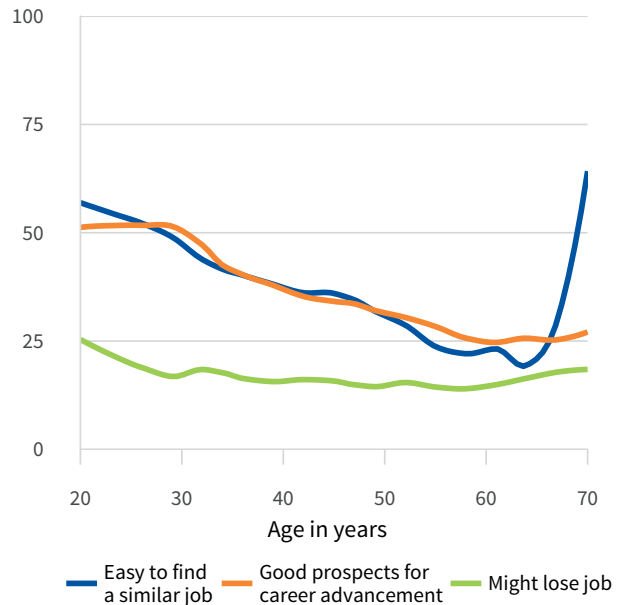


Figure 21: Employees' perceived employability, prospects for advancement and job insecurity by age (%)



Finally, career advancement is another element of prospects that presents a linear relation with age: older employees are more likely to perceive fewer chances for career advancement (Figure 21). The situation can be somewhat paradoxical. While having good prospects can give employees greater comfort and latitude in their working lives, it appears to be relatively less valued by older workers, which could be partly related to the fact that they are closer to retirement age.

In summary, skills development is less prevalent among employees aged 55 and over. This is explained by a smaller share of individuals reporting that they learn new things and participate in on-the-job training'. The fact that these same employees are not reporting a greater need for training could be connected to the fact that they see themselves as having fewer possibilities for career advancement. Moreover, some literature suggests that older workers are not motivated in contexts where training for the job is required. The situation of younger employees is one of greater job insecurity. Literature reviewed in Chapter 1 suggests that experiencing job insecurity (including unemployment) throughout working life can affect workers' health and well-being. If prolonged until old age, it can have a strong influence on older employees' already low level of perceived employability.

Summary

Working conditions of employees at different ages

This chapter operationalises the framework for sustainable work over the life course through an analysis of working conditions and work-related outcomes across age groups. The findings spell out both the varied circumstances and the diverse outcomes that workers experience at different ages. These include: a concentration of health-related issues and greater concerns about skills and prospects at older ages; a higher propensity to encounter difficult work–life balance during prime working age; and a greater prevalence of temporary contracts at younger ages. The data also capture the concerns at different ages, such as a desire to work relatively more hours among the younger cohorts, a stronger emphasis on work–life balance for mid-career workers, and a greater concern for development and prospects at older ages.

Some findings deserve further mention. Results from the differentiated model suggest that poor working conditions are similarly bad for all employees, irrespective of age. Therefore, if the objective is to support extended working life, there is a need not simply to intervene at older ages, but rather to tackle difficult working conditions across working life. On a related note, some indicators such as self-reported health status, musculoskeletal disorders and well-being seem to show deterioration with age, potentially pointing to an accumulation effect in working conditions that negatively affect health. Some working conditions and sustainable work outcomes improve after 55 years of age, which suggests that it is more likely that older employees continue working until legal retirement age under certain working conditions – namely, good work–life balance, fewer working hours and greater flexibility. It was also observed that for this group, the prevalence of health problems, such as musculoskeletal disorders, is lower at an older age than before age 55, probably indicating that it is healthier employees who are able and willing to work at this stage. Therefore, both good individual characteristics (at least in terms of health status) and good working conditions could increase the participation in work of employees in the EU28.

Given these conclusions, the aim of the following chapters is to understand how sustainable work conditions are distributed across occupations and countries.

4 | Working conditions by age within occupations

4 Working conditions by age within occupations

This chapter considers the influence of job characteristics on work sustainability by examining differences in work outcomes and working conditions according to occupation.³ Preceding chapters have outlined how working conditions affect sustainable work outcomes and how certain conditions are reported by employees at different ages. This chapter builds on those findings with the aim of identifying the occupations that correspond to better (or worse) working conditions and sustainable work outcomes.

The economic sector and occupation in which an employee is situated can be a critical factor in determining sustainable work trajectories. The quality and content of jobs within a occupation can shape employees' health, their capacity to combine work and caring responsibilities, as well as their attitudes towards future prospects and career longevity. For example, among employees aged 55 and older, 21% of clerical support workers report not being able to work in five years' time, whereas this figure increases to 35% for plant and machine operators (EU-OSHA et al, 2017). Occupational disparities therefore influence workers' perceived ability to continue working.

As mentioned in the introduction, many EU Member States have in recent years opted to raise the age of legal retirement. This policy decision can render employees more vulnerable at older ages, especially if they are working in arduous or hazardous jobs. As mentioned earlier, a report from the European Social Policy Network emphasises a concern for the 'individualisation of old age risks' resulting from the restriction of benefits and retirement protections for such workers (Natali et al, 2016). Restricted access to special retirement provisions has not been matched by measures supporting work ability and employability; as a consequence, a greater burden has been placed on older workers to supplement pensions with income from labour, forcing many to

continue to work in arduous jobs and accept the risks this entails.

In order to further examine sustainable work and a healthy transition to retirement, this chapter explores working conditions that are occupationally specific, and looks at how the differences across occupations contribute to divergent outcomes for sustainable work. It begins by looking at how trends in job distribution fall across ages and occupations. Using data from the EWCS 2015, the following sections analyse the relationship between occupational status and sustainable work in a twofold manner: first comparing outcomes in health and well-being, work-life balance, and skills and prospects across major occupational categories, and then going deeper into the working conditions relevant to sustainable work for specific jobs.

The literature review in Chapter 1 noted that broader occupational status tends to correlate with socioeconomic status. Examining work outcomes through the lens of major occupational groupings can account for certain differences in socioeconomic status and skills between employees over the life course. These groups are derived from the International Standard Classification of Occupations dated March 2008 (ISCO-08) one-digit level, a composite of occupations that are aggregated based on common economic activities. While this classification offers insights into the broader picture, there are also nuances within these categories that are worth exploring further. Therefore, the second part of the analysis takes a detailed look at more specific occupations, at the ISCO-08 two-digit level. The groups and corresponding subgroups are listed in Table 2. Including these subgroups allows for a consideration of the unique working conditions of employees in jobs of a different nature. A summary of the key findings is provided, along with a reflection on the implications of the results.

3 'Occupation' is defined here as a 'set of jobs whose main tasks and duties are characterised by a high degree of similarity'.

Table 2. Major and sub-major occupational groups

Occupational level	ISCO one-digit major occupational groups (used for sustainable work outcomes)	ISCO two-digit occupations (sub-major groups) (used for working conditions)
High-level occupations	1 Managers	13 Production and specialised services managers
	2 Professionals	22 Health professionals 23 Teaching professionals
	3 Technicians and associate professionals	33 Business and administration associate professionals
Mid-level occupations	4 Clerical support workers	41 General and keyboard clerks
	5 Services and sales workers	52 Sales workers 53 Personal care workers
	6 Skilled agricultural, forestry and fishery workers	
	7 Craft and related trades workers	71 Building and related trade workers 72 Metal, machinery and related trade workers
	8 Plant and machine operators and assemblers	81 Stationary plant and machine operators
Low-level occupations	9 Elementary occupations	91 Cleaners and helpers 93 Labourers in mining, construction, manufacturing and transport

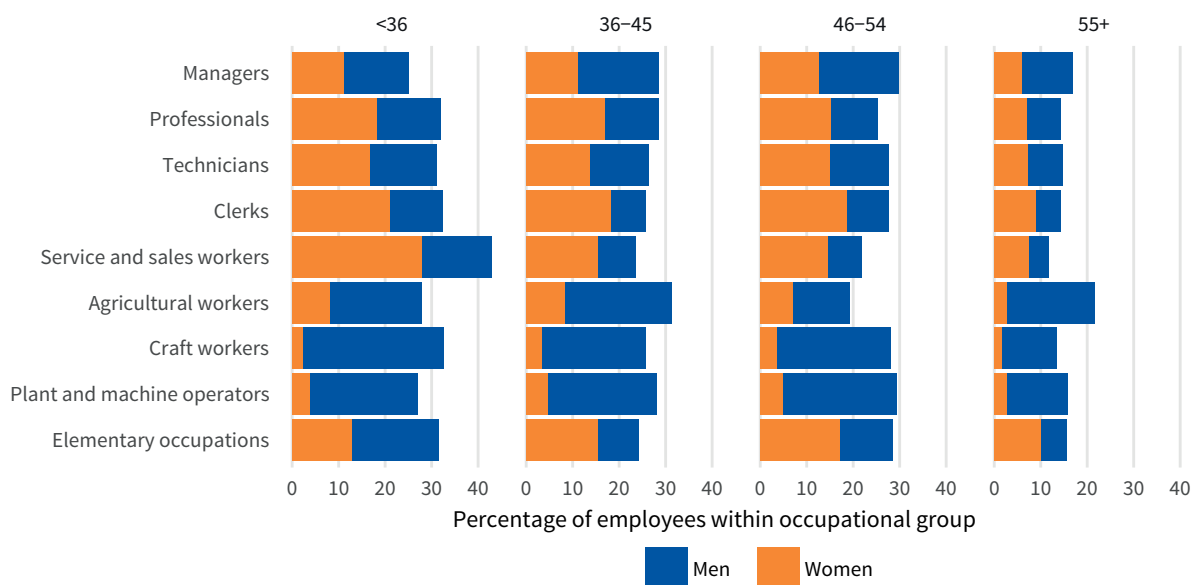
Source: International Standard Classification of Occupations (ISCO-08)

Occupational distribution of employees by age

For policies related to improving working conditions from a life-cycle perspective, it is important to consider the age and gender composition of different occupations. The EWCS data reveal some noteworthy patterns in the

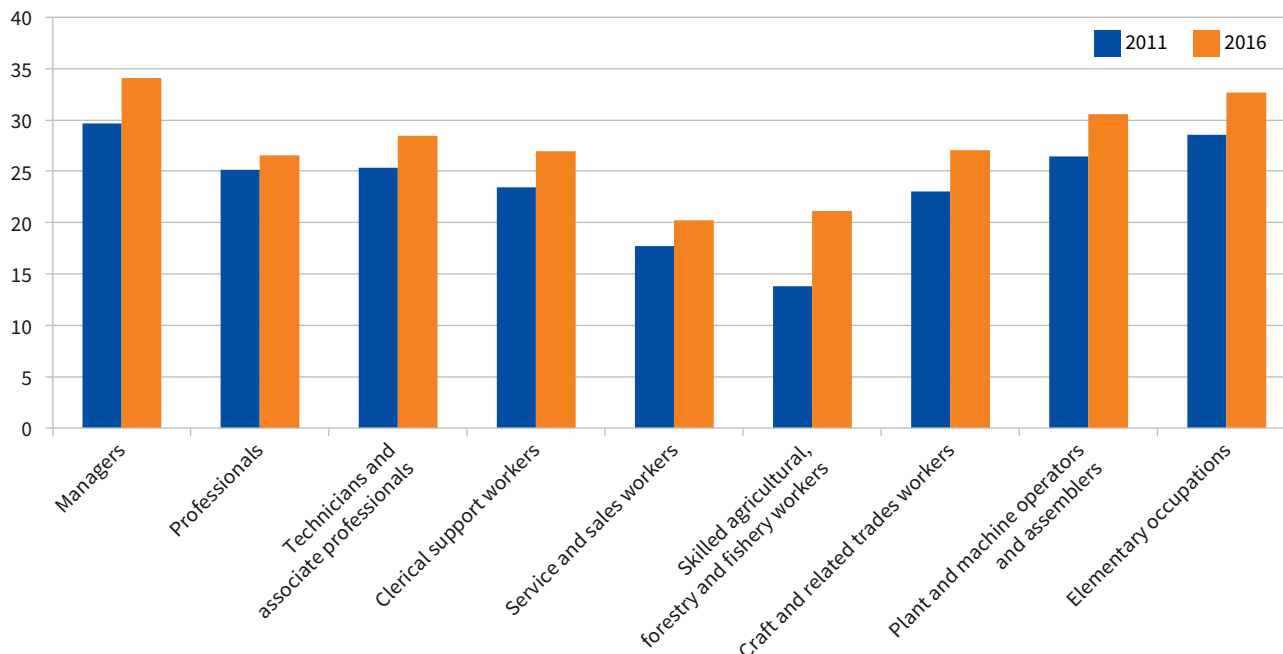
distribution of occupations according to age groups. Service and sales-related jobs, for instance, are mainly carried out by women aged 35 and under, whereas in industry-related occupations (craft workers and plant and machine operators), men of all ages are overrepresented. Male workers aged 55 and over are most likely to be found working in agriculture. Figure 22 offers a broad picture of the distribution of occupational levels by age and gender.

Figure 22: Distribution of employees in major occupational groups by age and gender (%)



Note: Occupations classified by ISCO-08 one-digit code.

Figure 23: Share of employees aged 50 and over in major occupational groups, 2011–2016 (%)



Note: Occupations classified by ISCO-08 one-digit code.

Source: Eurostat, 2012

It is also important to understand these data in the context of recent employment trends. According to the EU-LFS indicators for broader occupational groups (main level ISCO-08 1 digit), during the period 2011–2016 there were three groups on the rise in their share of the workforce: technicians, professionals, and service and sales workers. Figure 23 charts these results.

Accounting for age, the younger cohort (below age 25) has grown as a proportion of service and sales workers, and in professionals occupations, while the proportion of those aged 26 to 55 increased among professional occupations, and employees aged over 50 increased for all occupational groups. As the introduction made clear, this last group is expanding as a share of workers, and a closer inspection of recent trends uncovers the occupational outcomes embedded in this growth. Over the last five years, employees aged over 50 have grown across all occupational indices, with a particular tendency among managers and skilled agricultural workers, followed by plant and machine operators and elementary occupations. Both plant and machine operators and elementary occupations include the highest percentage of workers aged over 55 reporting that they are not going to be able to work when 60. The category with the lowest increase in the share of older workers is professional occupations, because the other age groups are also growing in that occupational group.

In conclusion, older workers are increasing in percentage across all occupations, which may counter assumptions about the types of jobs that older individuals are able and/or willing to perform. However, the higher rates of growth in skilled agricultural and plant and machine work

may demand further attention as these are occupations with higher levels of physically demanding tasks.

Sustainable work outcomes and conditions in different occupations

Given this backdrop, the following sections aim to analyse how the working conditions of employees vary according to occupation, again using ISCO-08 to organise jobs into a clearly defined set of groups according to the tasks and duties undertaken. The analysis of the EWCS starts by looking at the sustainable work outcomes for major occupational groupings (ISCO-08 one-digit level), covering all workers in the European Union. Then, referring to a selection of more specific occupations at the ISCO-08 two-digit level, working conditions are studied in order to better understand the characteristics of the jobs.

Major occupational groups and sustainable outcomes

For the purposes of analysing job sustainability, the use of the ISCO-08 one-digit code serves to help compare differences across broad occupational groups. The following occupational categorisations are based on skill levels.

- High-level occupations consist of managers, professionals and technicians.
- Mid-level occupations are clerks, services and sales workers, agricultural and craft workers, and plant and machine operators.
- Low-level occupations comprise only elementary occupations.

These differentiations also tend to strongly reflect differences in socioeconomic status among employees. Socioeconomic status is obviously an instrumental factor influencing both labour market participation until old age and certain outcomes such as health and well-being.⁴ The analysis aims to define some of the distinctions between broad occupational groups as they concern extended working life and sustainable work outcomes.

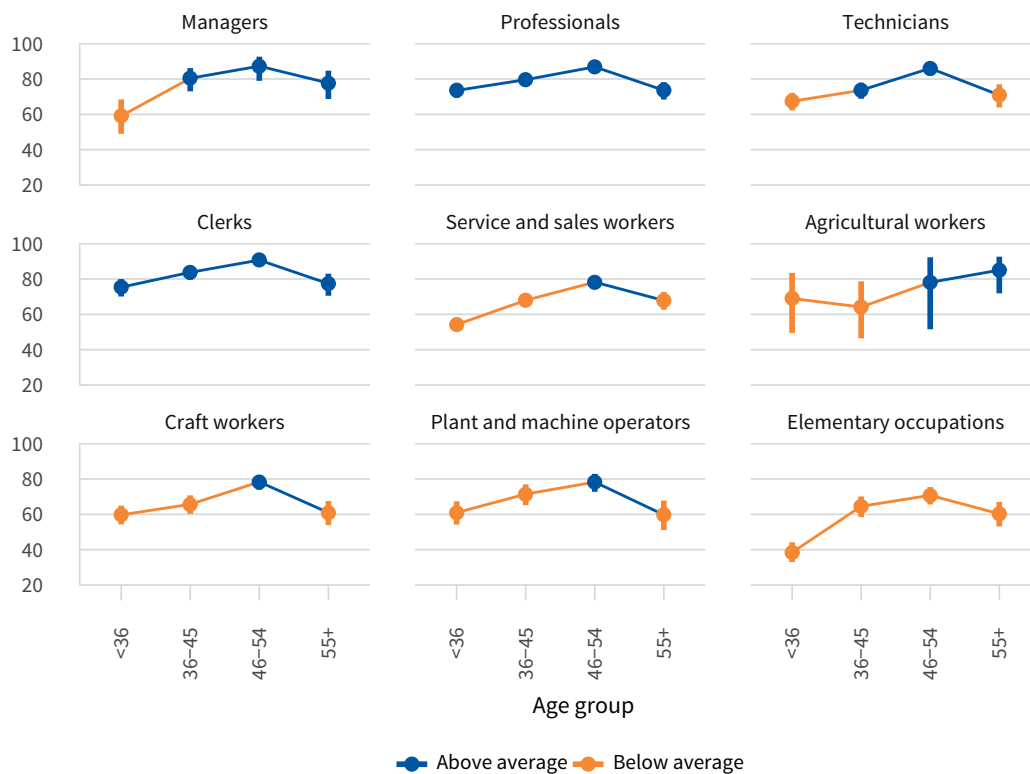
Attitudes towards sustainable work

Generally speaking, employees in high-level occupations, as well as clerks, register a greater ability to work until 60; in contrast, employees in lower (low- and middle-) level occupations report a more limited ability to work until 60. In other words, occupational status makes a difference in perceived ability to work until a later age. However, it is

also clear that across nearly all occupations, self-reported ability to work increases with age until 56 and older, at which point it tends to decrease. At that age, employees may lose faith in their ability to work due to the various reasons explained in Chapter 1 (health, financial reasons, work-related aspects, etc.) and also some of them start to be eligible for retirement. The exception is in the agricultural sector, where older workers appear to maintain a higher degree of work ability at that stage, as Figure 24 shows.

In Chapter 2, it was established that outcomes such as work–life balance, health and well-being, and skills and prospects have a positive effect on attitudes towards work sustainability in particular, and more generally on being able to work until retirement age.

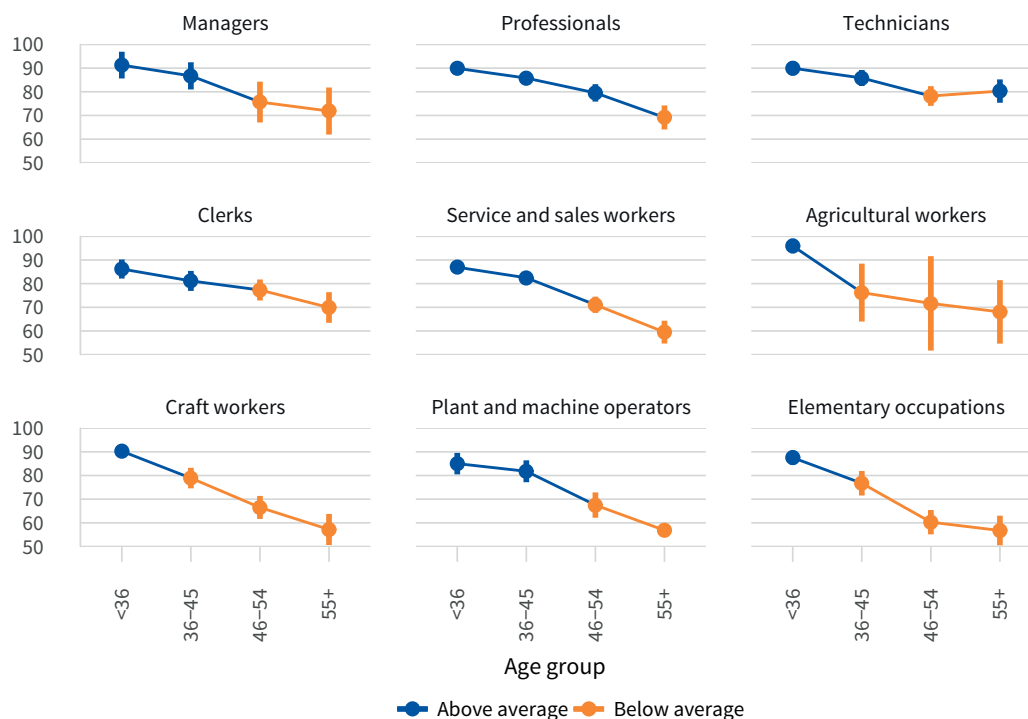
Figure 24: Attitudes towards sustainable work across major occupational groups and age group (%)



Note: The bars in the figure, and the bars in other figures, show the 95% confidence intervals, indicating the statistical uncertainty around the values presented in the figures; the longer the bars, the greater the uncertainty.

4 Socioeconomic status is taken to be 'any measure which attempts to classify individuals, families or household in terms of indicators such as occupation, income, and education' (Scott, 2014).

Figure 25: Self-rated health by major occupational grouping and age group (%)



Note: Percentage of employees reporting 'good' or 'very good' health. Occupations classified by ISCO-08 one-digit code. See also note to Figure 24.

Outcomes in health and well-being

Taken together, health and well-being is a major individual characteristic that allows workers to pursue sustainable work throughout their working life. Data show that general health status is reported as poorer for older age groups in all major occupational groups (Figure 25). However, certain occupations yield better health results for ageing workers: for example, technicians in the later stages of their career are more likely to report good health than older employees in elementary occupations. Another detail is that employees in some occupations report below-average health at an earlier stage than those in other occupations, as is the case for craft and agricultural workers between the ages of 36 and 45 (Figure 25). Gender differences in self-reported health by age group are mainly driven by the occupation of the employee.

In relation to the psychological well-being measure of WHO-5, there are also differences by occupational group, but in this case these are smaller and are not age-related. Hence, older workers have poorer health but not necessarily poorer well-being – except for some occupations (such as craft workers), where this indicator

shows a clear pattern of decline with age. Among managers, poorer well-being is found at prime age (35–45).

Findings from Chapters 1 and 2 showed that the work environment, both physical and psychosocial, can affect the health of employees. Given this relationship, occupational differences should also reveal contrasting health-related outcomes based on corresponding work environments. This is found to be true when comparing overall levels of the perceived effects of work on health for different occupational groups. Figure 26 charts these effects for different occupations. Throughout working life, poor working conditions have a greater negative impact on health among agricultural workers, craft workers, plant and machine operators, and – to a lesser extent – workers in elementary occupations. Age-related patterns are difficult to discern, but generally follow findings from Chapter 2, that the perceived negative impact of work tends to be higher for workers aged 35–60. Employees aged 55–65 years that are managers, professionals and in elementary jobs are more likely than other age groups to report positive effects of work on their health. In general, in those occupations that are more male-dominated, the impact of work on health is more negative than in female-dominated occupations.

Figure 26: Perceived impact of work on health by occupation and age (%)

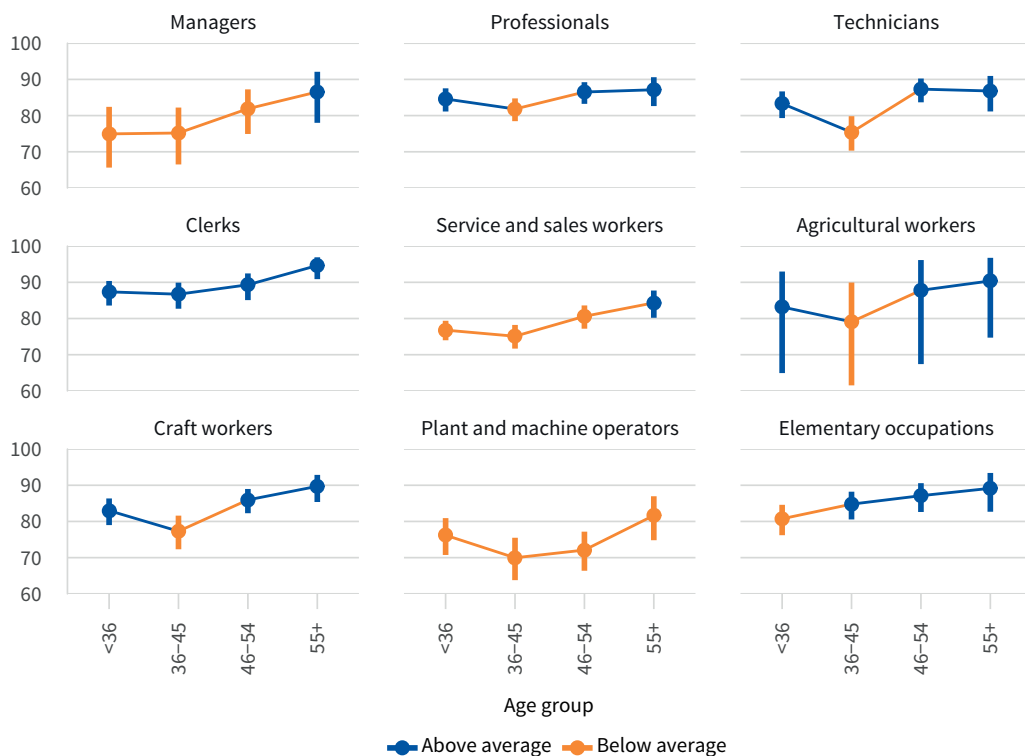


Work-life balance outcomes

The second outcome considered for sustainable work is work-life balance. Across most occupations, it is employees aged 36-45 who experience the greatest difficulties in balancing work with family commitments

(and other activities), supporting the conclusions made in Chapters 1 and 2. In general, employees are most likely to report good work-life balance at older ages, particularly at age 56 and above (Figure 27).

Figure 27: Work-life balance by occupation and age group (%)



Note: Percentage of employees reporting that the work and personal lives fit 'well' or 'very well'.

Nevertheless, there are differences by occupation (Figure 27). For one middle-level category of occupation (plant and machine operators), a relatively low share of employees experience good work–life balance across all age stages of working life, with some improvement for the older group from age 56 and above, but still below the overall average. For professionals, there is better work–life balance. Also, employees in elementary occupations and clerks report a rather good work–life balance for all age groups, with some improvement with age. Clerks represent an occupational group with a majority of female employees, whereas plant and machine operator occupations (with a rather bad work–life balance) is male dominated.

A closer focus on the gender perspective shows that work–life balance is worse for male managers, plant and machine operators and for some age groups in service and sales and elementary occupations. However, there are no gender differences among professionals and clerks, which could indicate that women working in these occupations give more relevance to their professional role in comparison with other major occupational groups

Prospects outcomes

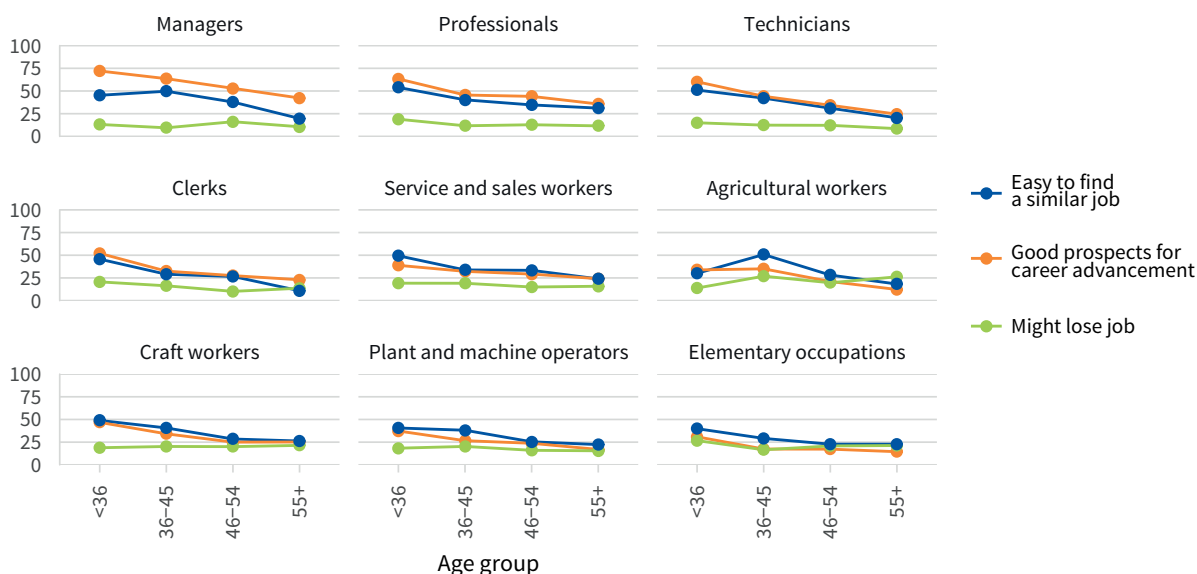
The third group of outcomes under consideration is related to prospects, employability and job insecurity. The general trajectory observed in earlier chapters pointed to a lower share of workers in older age groups reporting opportunities for career advancement. This is the case irrespective of occupation, as can be seen in Figure 28. Therefore, occupational discrepancies can be found by focusing on younger employees, those aged 35

and under. In this age cohort, 60–72% report good career prospects in high-level occupations, 52–37% in middle-level occupations and only 30% of younger employees have good prospects in elementary occupations. Among elementary occupations, it is interesting to note that after the age group 36–45, the share of employees with good prospects remains the same in all age groups, while in higher-level occupations, there is a strong decline of employees reporting good prospects as they age. Therefore, in elementary occupations, prospects are limited but remain at the same level throughout the life course, whereas for high-level occupations, prospects are better at all ages but decline for older age groups. These divergences therefore might be related to the differences in individuals and the characteristics of jobs between the broad occupational groups.

In general, ‘employability’ (how easy it is to find a similar job) follows the same pattern as career advancement, which is an indication that these two aspects are related and are also affected by the level of skills and education of the worker, and their ability to work.

Measures of job insecurity show that it is worst among those aged 35 and younger in elementary occupations and those aged 36–45 in agricultural jobs (where approximately one in four employees report job insecurity). In the broader picture, job insecurity does not appear to bear a disproportionate influence on workers at different periods of working life. It is the case, however, that among craft workers, it is those aged 56 and older who report the highest degree of job insecurity (21.4%) (Figure 28).

Figure 28: Employability, job prospects and job insecurity by age in major occupational groups (% of employees)



Box 3**Sustainable work outcomes and occupation**

Employees generally register poorer health at older ages. This tendency becomes more pronounced when occupations are examined, as health and well-being indicators are worse for older employees in middle- and low-level occupations. These groups of employees may suffer the consequences of cumulative job strain at older ages; this is especially the case for those working in agriculture, craft workers, and plant and machine operators, for whom the negative impact of work on health is higher throughout their working life. Broader occupational comparisons of psychological well-being do not yield strong differences across ages, and differences between occupations are small.

Work-life balance is worst between the ages of 36 and 45, but for some occupations (managers and plant and machine operators), the situation is below average for all age groups. Figures for job prospects show that in low-level occupations a small proportion perceive good levels of employability and potential for career advancement. This is especially the case for workers in the mid-to-late career stage.

To summarise, while general age patterns in terms of sustainable work outcomes across the life course appear fairly similar for occupational groups, there are particular sets of workers who report greater vulnerability. Employees in low- and middle-level occupations register more difficulties in relation to sustainable work outcomes. Taking plant and machine operators as a case in point, those working in this group in the range 46–54 years have poorer health, experience more negative effects of work on health, have a poorer-than-average work-life balance and minimal career prospects. In this case, it is interesting to note that it is after the age of 55 that employment rates start to decline because employees begin to exit the labour market. Across occupations, this decline is in fact the greatest for plant and machine operators, of whom 66% leave work between the ages of 55 and 60.

From a life course perspective, it is in some of the middle- and low-level occupations where we find a higher share of workers reporting, for example, job insecurity and poor health. The work-life balance of employees is less related to occupational level than socioeconomic status. Therefore, it seems that socioeconomic status determines to a greater extent the health status and prospects of an employee than work-life balance.

Differences in working conditions by occupation

Socioeconomic status or broader occupational categories might not be sufficient in explaining differences in sustainable work outcomes. For that reason, this section provides a more in-depth examination of occupations at ISCO-08 two-digit level, in order to identify the working conditions of specific occupations and better understand why certain sustainable work outcomes correspond to different occupations with different working conditions.

The first part of this analysis looks at working conditions as they relate to the physical and psychosocial (and organisational) risks for health and well-being.

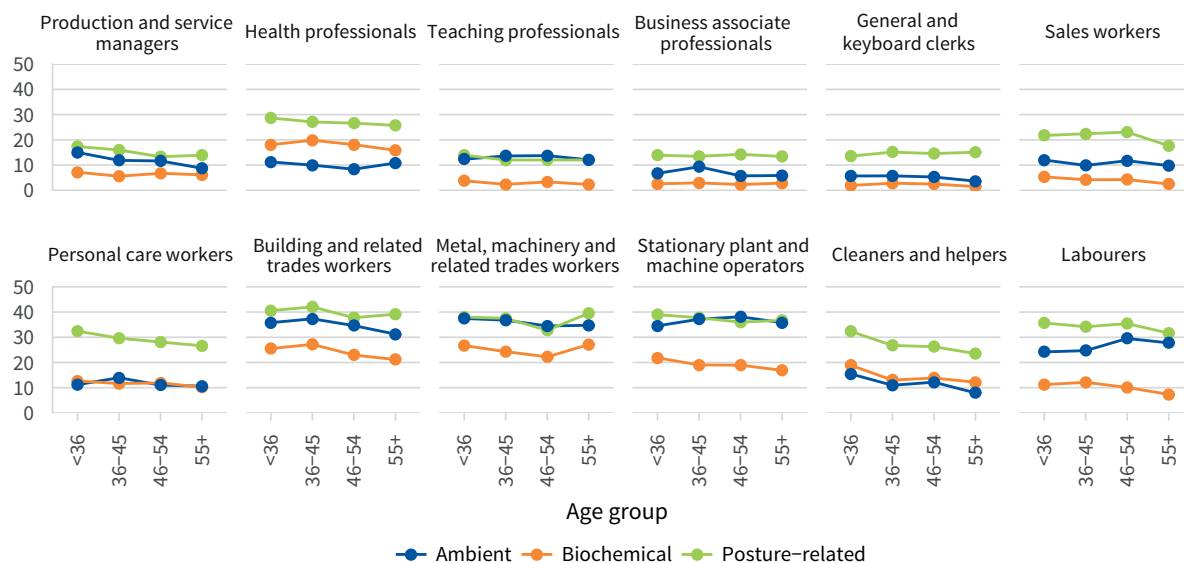
Physical risks

In general, a steeper decline in health for older workers in low- and middle-level occupations could potentially be the result of working conditions. From the gender perspective, a closer look at specific occupations shows that in male-dominated middle- and low-level occupations, age-pattern health status declines more

steeply for men than for women. This pattern can be related to the specific tasks carried out within these occupations by men and women respectively (Figure 29). Generally, older individuals working in these occupations in jobs in industry, construction and agriculture are more exposed to physical risks (at least until 55 years of age), and they are likely to report a negative impact of work on their health until the same age. Chapter 2 demonstrated that exposure to posture-related risks is associated with health problems). For most jobs, indices of posture-related risks are highest for younger workers and lower for older workers.

Considering specific occupations within industry and construction – metal workers and building workers – a higher share of workers report posture-related risks, and the age pattern suggests no big changes across age groups. Therefore, it can be said that in certain occupations, a high level of exposure to physical risks contributes to the poorer self-reported health status of employees. In addition, differences in health may also be influenced by differences in the socioeconomic status of the employees in these occupational categories.

Figure 29: Physical risks by age in occupations (% of employees)



Extended exposure to such risks poses a threat to the ability of such employees to continue work until the official retirement age. However, cleaners and helpers, for example, are less likely to experience posture-related risks at older ages. This decrease is observed for most employees at older ages, which may be due to a selection effect in which workers exposed to higher risks drop out or change jobs over time. In consequence, it seems that the selection effect by which older workers adapt their work environment to less risky jobs or leave jobs with exposure to physical risks can be true for some employees in some occupations, but not for all.

As previously mentioned, psychological well-being (as measured by WHO-5) does not show great variations across ages (although a slight decline with age was identified in Chapter 3) and that differences by major occupational groups are small. Nevertheless, it would be misleading to state that the physical job environment does not have an impact on psychological well-being or that psychosocial risks do not have an effect on the general health of workers. As Chapter 2 illustrated, aspects such as a high level of job demands, poor work-life balance, experiencing adverse social behaviour and poorer quality of management have significant repercussions for workers' overall health and well-being, which in turn is linked to work ability and the motivation to continue working until retirement age. Do these factors vary at different ages by occupation, as was found with physical risks?

Quantitative demands

Employees in middle-level occupations, such as craft workers and plant and machine operators, more frequently need to work at high speed or to tight deadlines than those in low-level elementary occupations. In general, these demands are reported less frequently by older workers. The decline in quantitative

demands at older ages for workers in elementary occupations is steeper than that seen for workers in high-level occupations. This may suggest that the selection effect is stronger, or that older employees' work ability is more limited in elementary occupations and – therefore – fewer workers are exposed to these demands at an older age. A closer look at more specific occupations (ISCO-08 two-digit level) confirms a steep decline in quantitative demands for cleaners and helpers as they age, but not for labourers. Additionally, among high-level occupations, for example, for production and services managers, and health professionals, the extent of quantitative demands hardly changes for older age groups. Therefore, a high degree of quantitative demands can be found in occupations of all major occupational levels and for some there is no significant variation by age.

Adverse social behaviour and management quality

Experiencing adverse social behaviour is prevalent among employees in high-level occupations (especially among health and teaching professionals, which are female-dominated occupations) and personal care workers and sales workers, which are also female dominated. For the latter group, it is more common at younger ages. This dynamic is reversed for health professionals, however, among whom a higher share report experiencing adverse social behaviour at the age of 45 and older. Taking into account that experiencing adverse social behaviour is already above average for younger people in this occupation, it might pose a problem for the health and well-being of health professionals if they spend their entire career in this occupation.

Management quality does not demonstrate significant age effects for specific occupations, barring a few exceptions. In general, employees in middle- and low-level occupations report a poorer quality of management than those at higher levels. With respect to age, there

is a drop in the share of employees experiencing good quality management at older ages in most occupations.

The three aspects of working conditions outlined above (physical risks, quantitative demands and poor social environment) reflect some of the differentiated effects of occupation on the psychosocial or organisational environment experienced by employees. Health professionals offer a clear example, with well above-average levels of reported quantitative demands and experienced adverse social behaviour that increase with age: the older the group, the greater the share of employees reporting these organisational and environmental risks. For some middle- to low-level occupations, the incidence across age can be greater still: for metal workers and labourers, quantitative demands and exposure to physical risks remain quite high across all age groups. The combination of these risks throughout the life course makes work in this occupation less sustainable, and renders older workers more susceptible to early exit if they have endured such conditions over an extended period.

Effects of physical and social risks on health

How do these physical and social risks affect employees' health? Investigating the perceived impact of work on health uncovers some occupational differences (Figure 30).

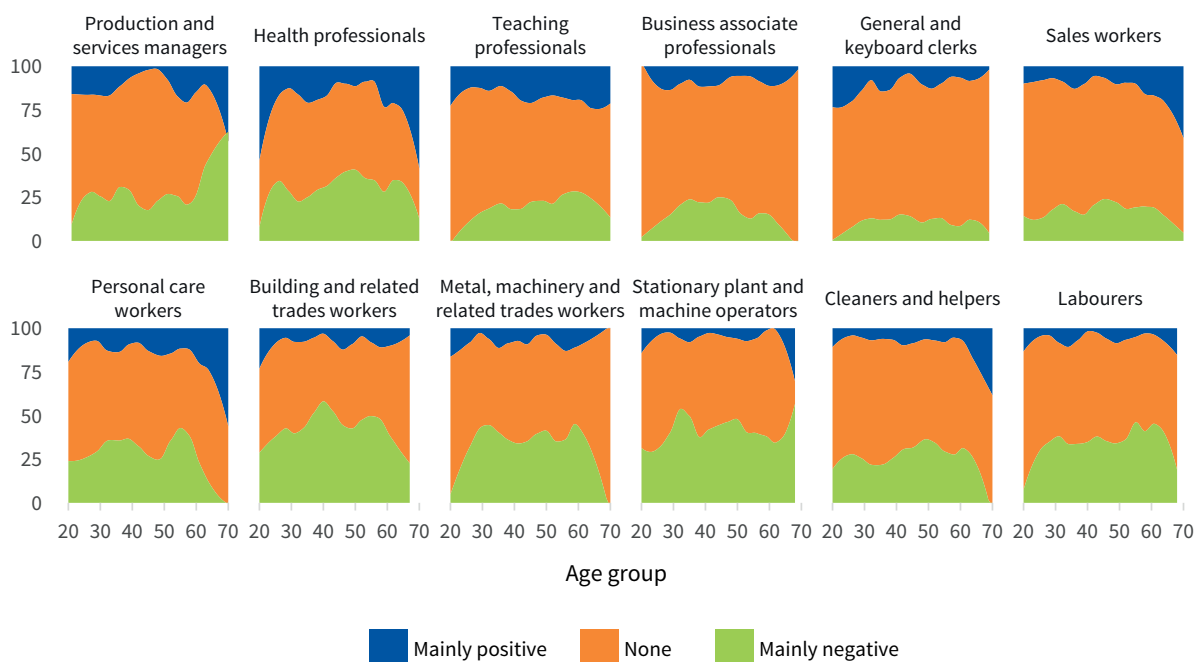
For high-level occupations, both health professionals and production and service managers include a higher share of employees reporting a negative impact, peaking at older ages for production and service managers. For middle- and low-level occupations, examples of a high incidence of reporting a negative impact of work on

health are found among labourers – also among metal, machinery and related trades workers, who suffer a mainly negative impact for all ages.⁵ And the negative impact seems to be greater for building and related trades workers and nearly as great for stationary plant and machine operators. And labourers appear to be no lower in terms of negative impact than metal workers.

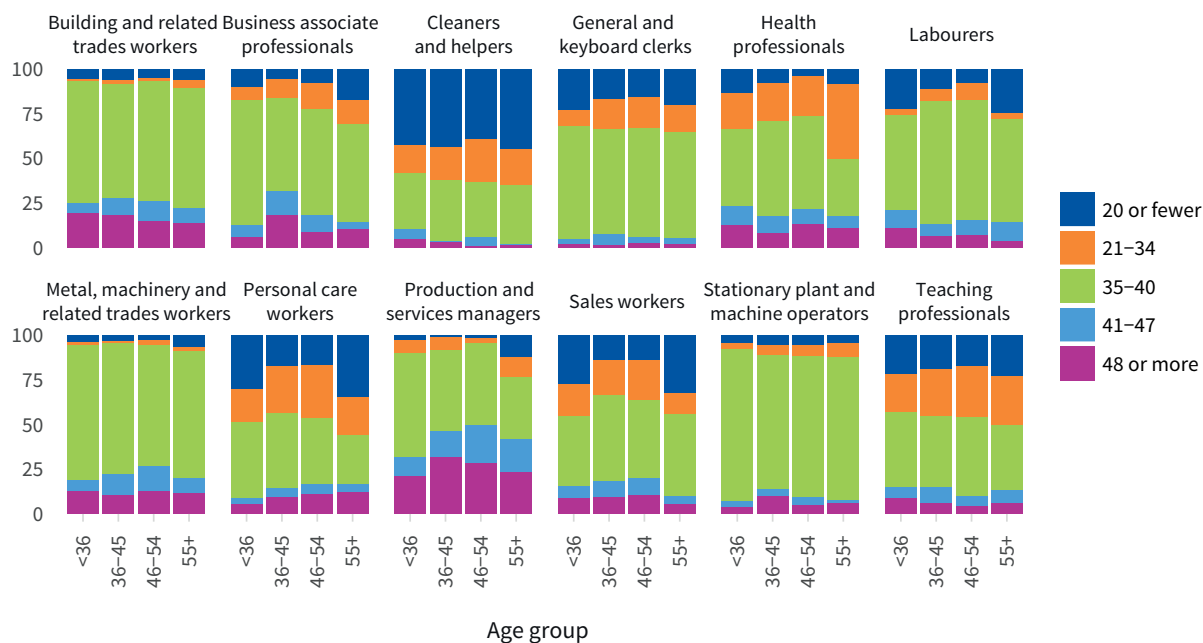
These results underscore the specific occupational dimensions of challenging work environments, because of the risks of working conditions not contributing to sustainable work and their accumulation until the latter years of the working life for an employee who spends all their working life in one of these occupations. This can be a result of either or both physical and/or psychosocial risks. In Chapter 2, it was discussed that the issue can be especially problematic for employees with a low level of education and in low-level occupations, which to some extent is confirmed by the EWCS data for some occupations at lower level.

From the gender perspective, in male-dominated occupations (for example, building and related trades workers and metal, machinery and related trades workers) there is a higher share of employees reporting a negative impact of work on health than in female-dominated occupations (such as general and keyboard clerks and sales workers). However, there are two occupations with a high share of women for which the impact of work on health is comparatively high: health professionals and personal care workers (Figure 30); normally, the experience of adverse social behaviour is more often reported by women, which might in part explain these results.

Figure 30: Impact of work on health by age in occupations (% of employees)



5 Again, apparent effects at the oldest ages are due to selection effects.

Figure 31: Employees' weekly working hours in selected occupations by age (% of employees)

Effects of working time

Issues pertaining to working time can have an impact on both work-life balance and health and well-being. For aspects relating to working time, the focus is on four occupations (ISCO-08 two-digit level): two high-level occupations, one with worse work-life balance (health professionals) and another with better work-life balance (teaching professionals); and two middle-level occupations, one with worse work-life balance (stationary plant and machine operators) and another with better work-life balance (general and keyboard clerks). Of these four occupations, health professionals and stationary plant and machine operators have the highest shares of employees reporting a negative impact of work on health.

Health professionals are more likely to work long hours (more than 48) than teaching professionals in all age groups. The 46-54 age group is the most likely to work long hours; workers aged 56 and older are the least likely to work long hours (Figure 31). However, the occupation with the largest share of employees working long hours is production and service managers, who at all ages work the longest hours. For teaching professionals, the pattern differs: a decline in the number of hours worked occurs steadily with age, whereas for health professionals, it is only when they reach old age that they reduce their working hours. For teaching professionals, the percentage working very short hours (20 or fewer) is much higher than for health professionals – 22%, as against 8%.

Although health professionals work longer hours than teaching professionals, the share of employees with working time autonomy is higher. Nevertheless, it seems that the teaching professionals' shorter hours (especially the higher proportion working fewer than 20 hours per week) sway work-life balance outcomes more than other working time factors. Differences

between these two occupations in working hours become apparent for the 36-45 age group, where caring responsibilities are higher, and at older ages: in these two age groups, teaching professionals work shorter hours than health professionals. Better outcomes for teaching professionals' work-life balance may be attributed to a lower percentage of employees working long hours and possibly to having more regular schedules, whereas health professionals normally tend to work in more flexible/non-standard arrangements. Both teaching professionals and health professionals are female-dominated occupations, therefore the work-life balance differences are not related to the gender composition in these occupations.

In middle-level occupations, stationary plant and machine operators have very typical working hours. In all age groups, the vast majority work between 35 and 40 hours. General and keyboard clerks include a higher share of employees with shorter hours (34 or fewer); this is prevalent at all ages. For both occupations, working hours are fairly stable over the life course. Working hours are important for work-life balance, but what clerks have in their favour is a higher proportion of employees at all ages with the opportunity to adapt their working hours within certain limits. This is not an option for most employees within the group for plant and machine operators. Another key difference contributing to the better work-life balance of clerks is that they have a higher percentage of employees with the option to take an hour off if needed, and this tends to increase with age. In this case, the working time arrangements of a female-dominated occupation are being compared with those of a male-dominated occupation. In the context of women still having the main caring role in some groups of society, these data suggest that somehow the characteristic of the occupation matches this gender division of roles. This is constant across age groups in general.

The examples emphasise the differences between occupations in conditions related to working time. At a more general level, production and service managers, stationery plant and machine operators and sales workers experience both poorer working time quality and poorer work–life balance. A general pattern of work–life balance improving with age is observed, but is not reflected among health professionals and labourers. The differences in working time variables across occupations show links with the varied outcomes in work–life balance and health and well-being across these groups.

Effects on prospects

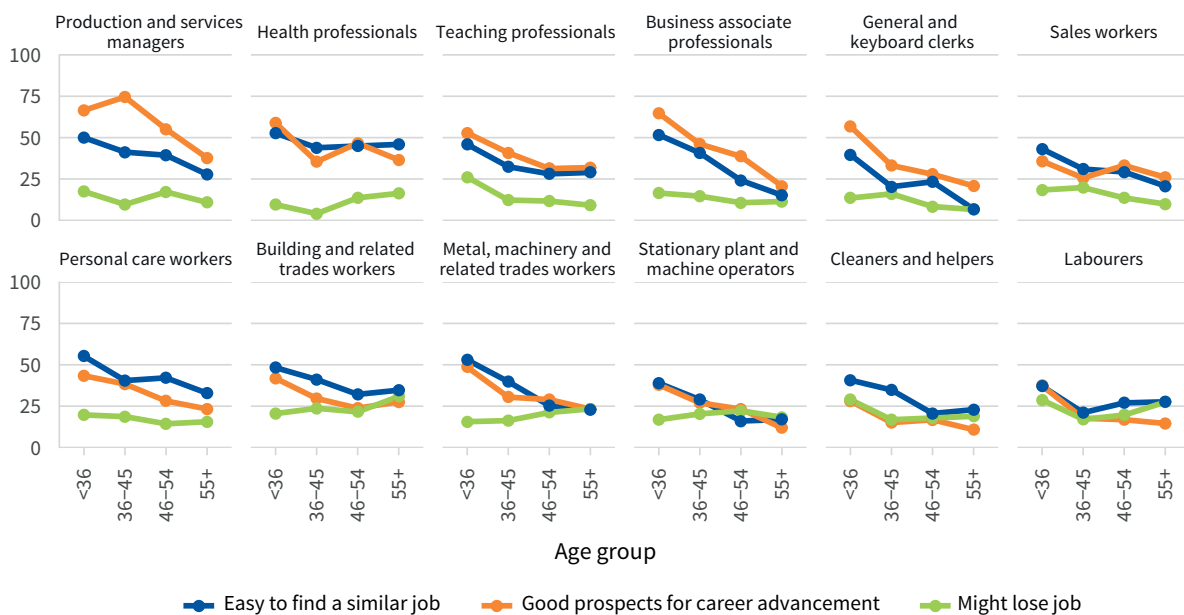
Working conditions that can influence outcomes related to prospects are the need for further skills to cope with the job, and participation in training. In relation to skills, a higher share of employees in high-level occupations report being in need of further training to cope with tasks involved in the job; this could be related to the evolving and more complex tasks of higher-skilled occupations. And it is in higher-level occupations that a higher share of employees participates in training. Differences do not emerge between female- and male-dominated occupations; rather, the differences are more related to occupational level.

Following the previous analysis, here variables related to skills and prospects are compared across three occupations: health professionals, sales workers and metal, machinery and related trades workers ('metal workers'). Of note is that for all three groups, the share of employees either in need of training to update skills or participating in training is very similar. At younger ages, both health professionals and metal workers have

the same percentage of employees needing training to cope with their tasks (30%). In the case of participation in training at the same age, the share of employees is somewhat higher among health professionals (64% compared with 52% for metal workers). Thus, for younger workers in both occupations there is a relatively high demand for training and participation in training in comparison with other occupations. Among older age groups, the pattern differs. In the case of health professionals, participation in training remains stable for all age groups, while the perceived need for training is slightly lower for older workers. In the case of metal workers, both the perceived need for training and participation in training sharply decline for older age groups. A logical conclusion of this simple comparison is that for health professionals, skills and prospects remain the same across age groups and are relatively higher than those for metal workers. In other words, health professionals seem to have more opportunities for skills development (in all age groups) and hence better perceived career prospects, confirmed in Figure 32.

Compared with the previous two occupations, a smaller percentage of sales workers are in need of training and participate in training. For the first variable, there is hardly any change until the oldest age group, but for the second indicator, as sales workers get older they participate less in training. This is more or less consistent with the share of employees who report good prospects, which does not improve for the oldest age group. Nonetheless, the deterioration in these working conditions for older workers is less accentuated for sales workers than in the case of metal workers.

Figure 32: Employees' perception of their career prospects, employability and job insecurity in selected occupations by age (%)



Finally, for sales workers, job insecurity declines with age. By contrast, both metal workers and health professionals report greater insecurity at older age, which contradicts the average pattern for the workforce. This should be further explored, but it is possible that violence and/or harassment can undermine the perception of job security for health professionals, or it could be the case that employees with less secure jobs remain longer at work in the health professions. For metal workers, a lack of training can play a role in increasing insecurity with age.

Although older workers in sales report less job insecurity than metal workers and health professionals, there is a higher share of older employees in temporary contracts in sales in comparison with the other two occupations. These results confirm that although job insecurity is related to temporary contracts, it is very likely that other aspects mentioned also play a role in perceived insecurity, including the labour market context for these occupations in countries where such contracts are more prevalent.

Summary

Working conditions by age within occupations

This chapter has deepened the understanding of the factors related to sustainable work by accounting for the conditions and outcomes of employees in different occupations. First, a comparison of sustainable work outcomes across broad occupational groups (ISCO-08 one-digit level) reveals that outcomes for health, well-being and (to some extent) career prospects are typically worse for employees in middle- and low-level occupations. Employees in elementary and craft worker occupations fare worse than those in other occupations in terms of health, well-being and prospects; meanwhile, plant and machine operators report consistently a below-average work-life balance throughout the life course. Additionally, attitudes towards sustainable work are better for employees in high-level occupations: they are more optimistic about being able to work until age 60. These findings broadly reflect similar disadvantages for employees of lower socioeconomic status.

Moving on, the secondary analysis demonstrated that there are exceptions to these general findings when occupational groupings are investigated more deeply, at the ISCO-08 two-digit level). Working time and work-life balance are not necessarily related to socioeconomic status, since production and service managers and business associate professionals are found to report worse conditions for these indicators. Physical risks and the perceived negative impact of work on health mostly follow similar patterns to the broader occupational groupings at ISCO-08 one-digit level – appearing worse for middle- to low-level occupations – but health professionals prove an exception to this rule, since they are as likely as lower level occupations to report a negative impact of work on health. Examining the working conditions for specific occupations at ISCO-08 two-digit level also exhibited different age patterns by occupation, underscoring the findings from Chapter 3 that employees experience working conditions differently throughout the life course.

It is worth considering what happens when an employee spends their entire career in one occupation and this occupation attracts a greater incidence of those factors that render working life less sustainable. If, as many studies demonstrate, conditions of work have a cumulative effect over the life course, this could result in sharp negative consequences for the health of workers. With this in mind, the working conditions of some middle- and low-level occupations (and certain high-level occupations) could endanger the ability of employees to continue working at later ages and, by extension, push them into early retirement.

The inverse of this is also true: employees are more likely to work up to retirement age if they experience better conditions. Measures of quantitative demands and work-life balance produce an intriguing trend in which older employees in elementary occupations tend to report better conditions and outcomes, both when compared with other age groups and with other occupations. This could suggest that older employees remain in low-level occupations only when they benefit from good working time arrangements. Nevertheless, a more definitive conclusion would need to be further explored using other methodologies, such as qualitative techniques or longitudinal surveys covering populations over time.

From the gender perspective, it was found that the health of workers is determined by the occupation rather than by the gender of the employee, and that different age patterns seem to be related to the tasks that men and women perform within the occupations. Exceptions have been observed in relation to experiencing adverse social behaviour (more common in female-dominated occupations and at a younger age) and work-life balance (with men reporting worse work-life balance in the 36–44 age group in male-dominated occupations), where a gender component might influence outcomes related to these aspects.

It has not been the aim of this chapter to review all the sustainable work-related factors, but to highlight the importance of occupation when looking at the working conditions of workers of different ages. The examples raised here clearly show areas for policies targeting the improvement of working conditions over the life course, or for specific age groups, in different occupations.

5 | Country comparative analysis

5 | Country comparative analysis

The literature review from Chapter 1 revealed some of the social, contextual and institutional elements influencing sustainable work and working until retirement age. These include: national pensions systems; policies relating to taxes, benefits, employment protection, education and training, healthcare and the labour market; early and targeted retirement schemes for specific workers; and social attitudes and norms regarding retirement at the national or workplace level.

Recent policies implemented in many European countries have mainly dealt with increasing the pensionable age and providing incentives to individuals to continue working until legal retirement age or beyond (Eurofound, 2013). This approach has marginally improved the employment rates of older workers, but it is not sufficient to support all employees working until retirement age. As reflected in earlier chapters, work longevity is not simply the result of retirement incentives: it is also connected to working conditions, individual characteristics and the motivation to work.

National contexts can play a role in shaping these components of sustainable work. For instance, an older worker (aged 55 or older) in Denmark is more likely to report a good work–life balance than an older worker in Greece, controlling for work-related contextual variables (EU-OSHA et al, 2017). Therefore, it is worth exploring where other latent contextual factors may lead to different work-related outcomes for employees.

This chapter presents a detailed look at the landscape of sustainable work across the EU. By looking at differences by age in relation to key outcomes, factors and ability to work, a country comparison can illuminate the degree to which working conditions contribute to sustainable work and to enabling a person to continue in work until legal retirement age. Patterns may differ from country to country, and understanding these discrepancies allows for a more focused discussion of policy solutions at the national level. Using the same indicators from Chapters 3 and 4, the country comparison aims to provide an analysis of the differences found in relation to the conditions and outcomes related to sustainable work.

Finally, for those countries with a large enough sample size in the EWCS (for example, Belgium, Germany,

Slovenia and Spain), a more in-depth analysis will be carried out, bringing attention to the variance in working conditions and outcomes for these cases. The results of this comparison demonstrate the importance of the national context for work-related outcomes and underline the need for social partners and governments to intervene strategically where there is a need for improvement.

Sustainable work outcomes across the EU

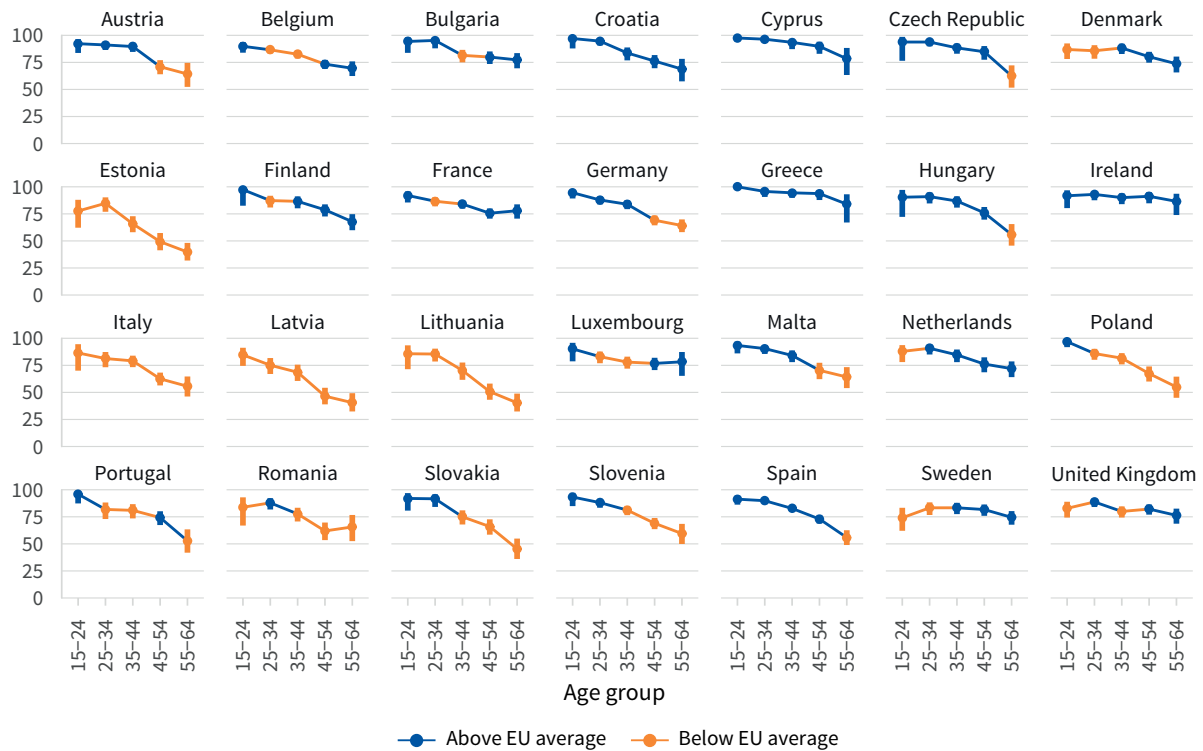
Health status is, as the previous chapters have explained, a key variable in determining labour market participation, especially at older ages. The self-reported health status of employees can depend on both individual traits and the conditions pertaining to their work. Inspecting country-level data on health could also provide some information on the role of that contextual factors, such as healthcare systems and social practices, that shape measures of health.

Self-reported health and well-being

The EWCS aggregate measure of self-reported health status shows that the shares of employees with good health vary by age groups and by country. The share of employees in the age group 46–54 who report ‘good health’, in countries such as Estonia, Latvia and Lithuania is less than 55%, whereas for other groups of countries (Croatia, the Czech Republic, Denmark, France, Greece, Ireland, Sweden and the UK), it is just above 80%. These differences are shown in Figure 33.

The age patterns of self-reported health in the EU28 show that in most central and eastern European countries, there is a steady and comparatively pronounced decline with age – in other words, employees working at age 55 and older are the most likely to report poor health. This is the case in the Baltic states (Estonia, Latvia and Lithuania), Poland and Slovakia. On the opposite side of the ranking, Ireland is one example of a country with a higher share of employees reporting good health throughout the life course.

Figure 33: Self-reported health by age, EU28 (% of employees)



Note: Percentage of employees reporting 'good' or 'very good' health. See also note to Figure 24.

Results for psychological well-being do not exactly parallel those for health. For this indicator (WHO-5), France and the United Kingdom score the lowest overall. French employees at older ages report better well-being, whereas in the United Kingdom the well-being level does not change much across age groups. Higher levels of well-being are observed for Austria, the Czech Republic, Germany, the Netherlands and Spain. For the Czech Republic and Spain, well-being is reported as being lower among older employees.

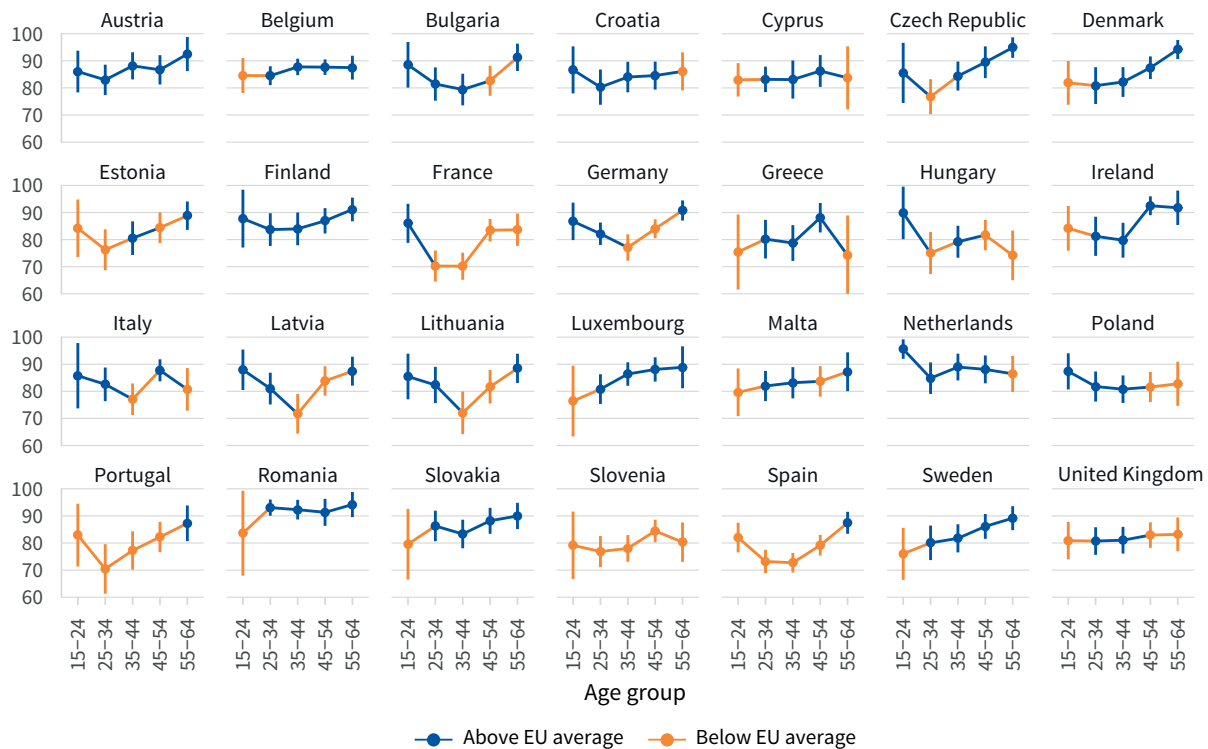
In order to account for these differences, it is worth considering the effects of the job on health. Measuring the influence of work on individual health yields noteworthy results. In many countries, including those with a greater incidence of a negative impact of work on health, the share of employees reporting a negative impact reaches a peak at around 50 years of age. This is in line with the age at which the poorest health and well-being are

typically recorded for certain Member States – especially the Baltic states. Among a smaller group of countries (Denmark, Ireland, the Netherlands and Sweden), positive job-related health outcomes are observed. These countries are among those with better self-reported health across the life course and they only show a strong decline in self-reported health status after 65 years of age.

Work-life balance

The second outcome related to sustainable work, work-life balance, contributes to the well-being and participation of employees (through both motivation and ability) and can also indirectly affect health. Work-life balance is an issue that is especially pertinent to workers of prime age who are more likely to experience difficulties managing family and work commitments; however, it also affects older workers as regards continuing to work until the legal retirement age. This is reflected in the cross-country findings.

Figure 34: Work-life balance by age, EU28 (% of employees)



Note: The figure shows the percentage of respondents reporting that their work life and personal life fit well together. See also note to Figure 24.

Figure 34 shows how – for certain countries – reported work-life balance reaches a low point between the ages of 35 and 44. In Bulgaria, France, Hungary, Latvia, Lithuania, Portugal, Slovenia and Spain, around one in four employees report that their work-life balance is not good at this stage of their working lives. Work-life balance plays an important role in determining whether employees of older age wish to continue working; in most countries, for employees aged 55 and over, reported work-life balance is better, but for some countries it remains at the same level as for younger groups as in Greece, or in Hungary where it is poorer than that of younger groups. Notably, in the United Kingdom, work-life balance does not vary greatly across the life course. It is interesting to observe that one cluster of countries has a high share of employees reporting good work-life balance across the life course without any decline at prime age and with steady improvement for older groups (Austria, Belgium, Denmark, Finland, Romania and Sweden).

Prospects, employability and job insecurity

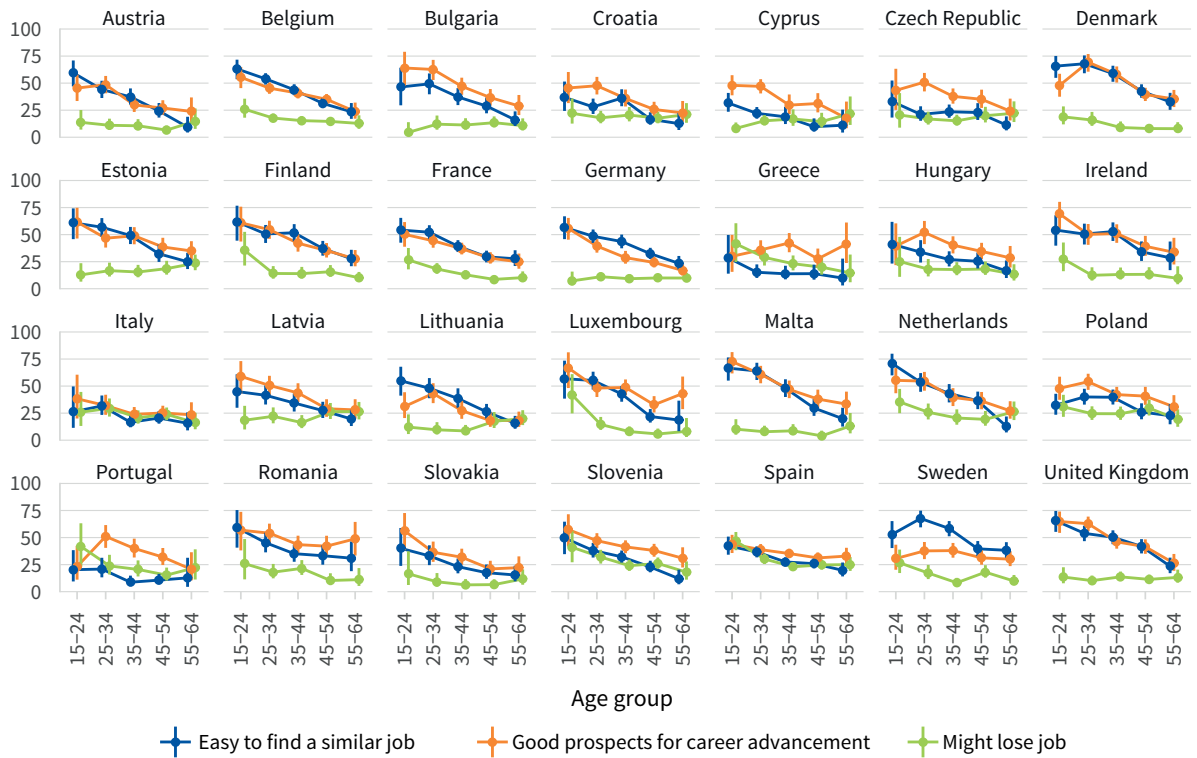
The third aspect considered in relation to sustainability of work is the constellation of prospects, employability and job insecurity. Broadly speaking, job insecurity (‘might lose job’) remains relatively stable throughout the life course across countries. Insecurity appears disproportionately to affect younger employees in Belgium, Finland, France, Ireland, Italy, Luxembourg, the Netherlands, Slovakia and Spain (Figure 35), but it is difficult to see how this is the result of a set of macroeconomic conditions specific to these countries.

Contrary to the typical decline in job insecurity among older employees on average in the EU28, especially after age group 45–54, job insecurity is reported to be higher for older age groups in Austria, Cyprus, Estonia, France, Luxembourg, Malta, the Netherlands, and Portugal. The greatest incidence of job insecurity for employees older than 55 is seen in Estonia, Latvia, the Netherlands, and Spain.

Employability (‘easy to find a similar job’) and career prospects are tightly correlated for most countries (as the near-overlapping of the blue and orange lines indicates). There are gaps between these two outcomes for Cyprus, the Czech Republic, Greece, Portugal and Slovenia, where career prospects tend to exceed employability (that is, employees are more likely to have confidence in their opportunities for career advancement rather than changing to a similar job). This may reflect a greater belief in rewards and prospects in the workplace as opposed to the labour market at large. The countries with a lower share of employees aged 55 or over reporting that it would be easy for them to find a similar job are Austria, Cyprus, the Czech Republic, Greece and Slovenia.

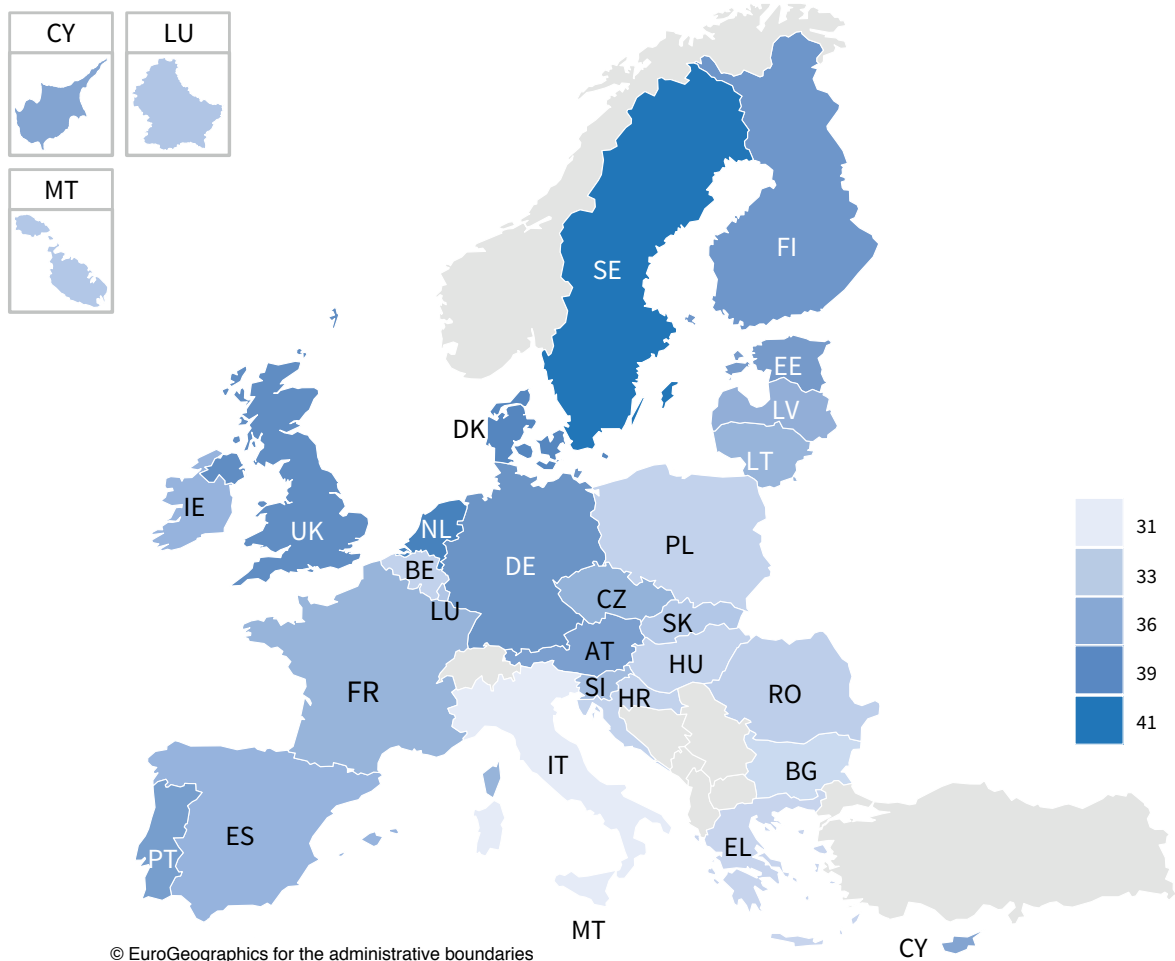
In Chapters 2 and 3, the findings supported the idea that sustainable working conditions can be conducive to extended working lives. From the outcomes observed across countries, it is now possible to juxtapose those findings with measurements of the duration of working life. Eurostat has developed an indicator based on demographic and labour market data to illustrate the number of years a person aged 15 can expect to work over their lifetime, as displayed in Figure 36.

Figure 35: Employees' perception of their prospects, employability and job insecurity by age, EU28 (%)



Note: See also note to Figure 24.

Figure 36: Duration of working life, 2015 (years)



© EuroGeographics for the administrative boundaries

Source: Eurostat (2017b)

From Figure 36, we can see that working life is longest in the Nordic countries of the EU28 (Denmark, Finland and Sweden) and the Netherlands, while the expected duration is shorter in Belgium, Italy and eastern Europe.⁶ In countries where working conditions are worse for employees in the age group 45–54, one might expect that working beyond age 55 becomes more difficult when taking into account the cumulative effect described earlier. The conditions and outcomes for workers

around this stage of life are therefore crucial in shaping employees' ability to work until the legal retirement age. This has critical implications for the future of older workers across the EU. This always has to be interpreted cautiously because of the cross-sectional character of the EWCS data; nevertheless, a review of sustainable work outcomes for this age group demonstrates how pivotal this period is to an extended working life.

Table 3: Sustainable work outcomes by country, employees aged 45–54, EU28 (%)

Country	Health	Well-being	Work-life balance	Job security	Employability
Ireland	91.2	74.1	92.5	86.7	34.1
Denmark	80.2	70.9	87.5	92.0	42.6
Netherlands	76.2	75.0	88.1	80.7	36.4
Finland	78.7	71.2	86.9	84.3	37.1
Sweden	81.7	67.3	86.1	82.0	39.6
United Kingdom	82.2	63.8	82.9	88.7	41.8
Luxembourg	76.8	67.8	88.1	94.3	21.9
Austria	71.0	70.5	86.7	93.4	24.3
Czech Republic	84.8	70.0	89.5	80.1	22.8
Germany	69.1	69.3	84.0	90.0	32.4
Belgium	73.4	68.2	87.7	85.4	31.3
Romania	61.9	67.7	91.3	89.7	33.2
Malta	70.4	65.8	83.7	96.0	29.7
Greece	93.7	67.0	88.1	80.1	13.9
Bulgaria	80.0	66.1	82.6	86.5	28.8
France	75.6	64.4	83.5	91.4	29.5
Cyprus	89.8	63.9	86.3	85.5	9.7
Spain	73.0	73.4	79.2	75.3	25.9
Hungary	76.0	67.3	81.7	82.4	25.4
Portugal	74.3	71.8	82.2	84.7	10.6
Croatia	76.2	66.0	84.5	81.8	16.6
Slovakia	66.0	61.8	88.2	93.5	17.5
Slovenia	69.0	68.9	84.4	74.0	22.8
Estonia	49.3	66.4	84.4	81.4	32.2
Lithuania	50.7	68.9	81.7	82.5	26.2
Italy	62.5	63.6	87.7	76.2	20.5
Poland	67.4	63.7	81.6	70.4	26.0
Latvia	46.5	64.4	83.8	73.6	27.4

Notes: Each cell contains the percentage of employees aged 45–54 for each country. Based on these percentages, a standardised score (known in statistics as the 'z-score') was calculated measuring the country's relative deviation from the EU mean for each category. Higher values indicate more sustainable outcomes. The cells are shaded different colours based on the standardised value of the outcome (that is, its relative deviation from the mean for each category). Countries are ordered in terms of the average standardised score for all categories, ranging from the best performing (green) to the worst (red).

⁶ The duration of working life indicator measures the number of years a person aged 15 is expected to be active in the labour market throughout his or her life. This indicator is calculated with a probabilistic model combining demographic data and labour market data.

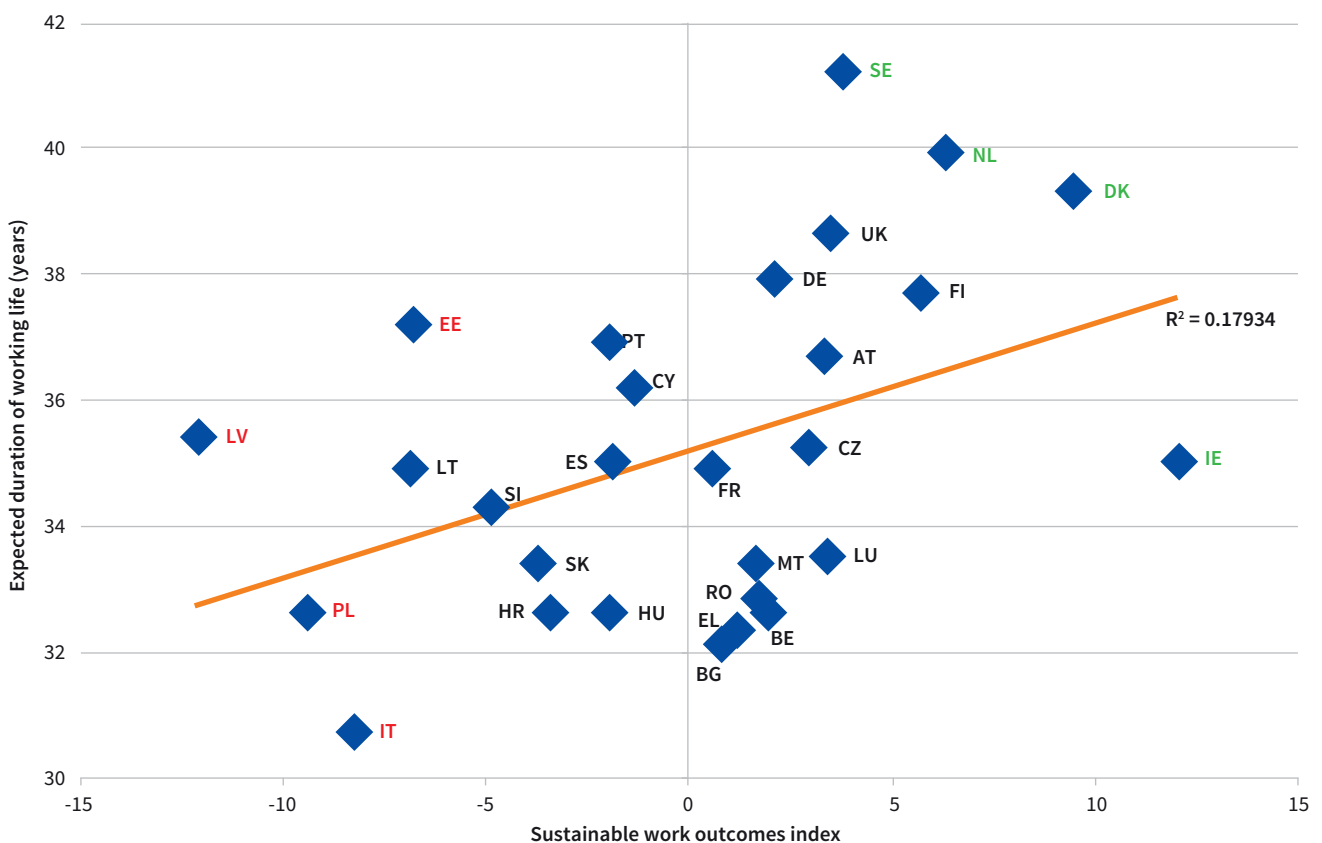
Table 3 presents a holistic picture of sustainable work outcomes across the EU. The major outcome indicators listed (for health, well-being, work-life balance, job security and employability) are evaluated for each country among employees in the 45–54 age group, an instrumental age group in the context of sustainable work. The values for these outcomes are thus represented as the percentage of employees aged 45–54 for each category. The cells in Table 3 are coloured on the basis of this deviation from the mean, and thus the poorer health reported for workers aged 45–54 in the Baltic states, for example, appears as dark red as they fall significantly below the EU average. Countries are listed in order of their ‘sustainable work outcome index’, combining their standardised scores across all outcome categories.

Table 3 illuminates some areas where countries score particularly better or worse, relative to the EU28 average, in terms of key sustainable work outcomes. Cyprus and Greece, for example, score exceptionally well in measures of self-rated health, considering their sustainable work

ranking more broadly. Portugal and Spain, meanwhile, measure far worse for employability and work-life balance, respectively, relative to their overall position. The Baltic states all show worrying degrees of below-average health status, work-life balance and job security. The relatively lower rates of job security in the Netherlands and Sweden are notable (compared with their scores in other aspects), while employability is much better for employees in Denmark, Sweden and Finland as well as the Netherlands and the United Kingdom. It is worth keeping in mind that these values only pertain to employees aged 45–54 and do not account for the kind of occupational differences discussed previously in Chapter 4; nevertheless, they do point to latent institutional factors that influence sustainable work outcomes at the country level.

Considering these sustainable work outcomes alongside the data presented in Figure 36, how does sustainable work relate to the duration of working life across the EU? Figure 37 plots countries’ average duration of working life by their overall sustainable work outcomes index.

Figure 37: Duration of working life by sustainable work outcomes index, years (age 45–54)

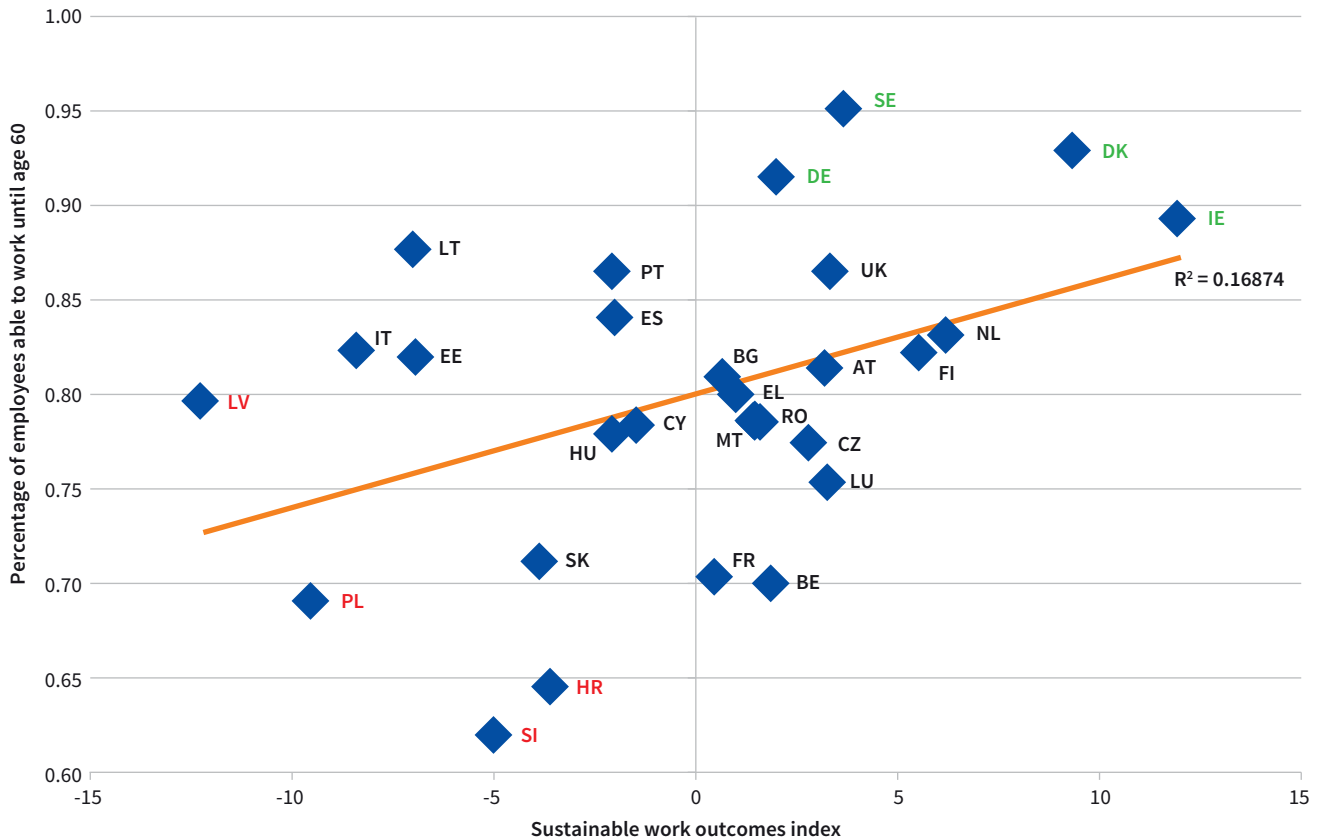


Note: The green and red labels indicate the countries that score best and worst, respectively.

The general pattern in sustainable work outcomes broadly reflects differences in the average duration of working life. Countries where working life extends close to 40 years (Denmark, Finland, the Netherlands and Sweden) tend to score comparatively better across sustainable work outcomes, whereas countries where working life averages fewer than 34 years (Croatia, Italy, Poland and Slovakia) typically fare worse.

This broad correlation also holds true for the attitudes towards sustainable work (the perceived ability to work until 60) for this age group. Figure 38 plots the values for this outcome by the general sustainable work scores across the EU, which follow a similar trend.

Figure 38: Able to work until 60 by sustainable work outcomes index (age 45–54)



Note: The green and red labels indicate the countries that score best and worst, respectively.

Again, in countries that score below the average for sustainable work outcomes, employees aged 45–54 are less likely to believe they can continue working in their jobs until the age of 60 (Figure 38).

Figures 37 and 38 are worth considering alongside the overall values in Table 3. The cases mentioned above of Estonia, Latvia and Lithuania are of interest because while employees aged 45–54 report poorer health (and worse general sustainable work outcomes), they are likely to remain in the labour market as long as – if not longer than – the average EU employee. Figure 37 shows, for instance, the expectation that employees in Ireland and Latvia will work for roughly the same period of time (35 years) over the life course, on average. Yet there is a vast disparity between the two countries in the sustainable work outcomes index, suggesting that employees at the mid- to late-career stage report far worse outcomes in Latvia than in Ireland, although the expected duration of working life is equally long in both countries. This is also the case for Lithuania in Figure 38, where attitudes towards sustainable work are favourable in spite of a lower sustainable work score in general.

Certain groupings become apparent when examining the expected duration of working life and the ability to work until age 60 through the lens of sustainable work outcomes by country. The higher rates of employability reported at ages 45–54 in Denmark, Finland, Sweden, the Netherlands and the United Kingdom correspond to a longer duration of working life. Greater job insecurity experienced by older employees in Croatia, Poland and Slovenia correlates with the less optimistic attitudes towards sustainable work in these countries.

Of course, as an aggregate profile of EU-wide outcomes, Table 3 cannot perfectly capture the distinct national features of working life. Nevertheless, this comparison is useful for demonstrating relative differences in sustainable work outcomes by country and connecting these variations to employees' long-term ability to work and the longevity of working life. The findings underline the importance of these outcome indicators as they relate to sustainable work over the life course, and hint at some of the contextual aspects contributing to differences across countries.

Working conditions related to sustainable work outcomes: Belgium, Germany, Slovenia, Spain

In order to conduct a comparison of differences between countries in working conditions and outcomes, this section focuses on four countries – Belgium, Germany, Slovenia and Spain. These countries have been chosen for two principal reasons. First, in terms of EWCS data, larger sample sizes were used. This sharpens the methodological approach by allowing the study to observe subgroups within these countries that are more subject to generalisation. Moreover, as the aggregate data from the previous section illustrate, these countries vary in terms of the duration of working life, in that each country is situated in a different quartile. This variation, coupled with the significance of the sample size, provides a sound basis for conducting a qualitative comparison.

Health and well-being

In terms of well-being, Slovenia ranks at the bottom of this group, with a well-being score (WHO-5) for most age groups that is around average. Although the differences are not great, both Germany and Slovenia have a lower share of workers with ‘good health’ at age 45–54. Additionally, in Slovenia, the impact of work on health at prime ages is quite considerable: there is the possibility of a strong selection effect occurring as this impact sharply declines for older workers. In Spain, in contrast, the impact of work on health increases after 55 years of age. In general, both Belgium and Germany have a lower share of workers reporting negative work effects on health. In sum, the impact of work on health is greater in both Spain and Slovenia, with the latter suffering worse health throughout the life course.

Indices of physical risk are higher in Spain and Slovenia for most age groups. In relation to quantitative demands, these countries also register comparably higher exposure to such conditions. However, in Spain, quantitative demands peak at around 40 years and proceed to decline with age, whereas for Slovenia, these requirements are high prior to age 40 and peak again at 50 years of age. Belgium and Germany report fewer quantitative demands and these tend to decline with age.

Looking more closely at issues in relation to the psychosocial environment, Germany scores lower in management quality across ages, and together with Belgium, contains a greater proportion of employees reporting adverse social behaviour. Furthermore, support received from managers is scarcely reported in Germany. In Spain, more workers receive support (from both managers and colleagues), although this tends to decline for older employees.

In summary, in relation to health and well-being, Slovenia and Spain are the countries where a higher share of employees are affected by working conditions that can have a negative impact on health (exposure to physical risks, high level of demands and longer hours in the case

of Slovenia only). For Slovenia, quantitative demands are greatest for employees around the age of 50; for Spain, employees at this age are likelier to experience physical risks in the workplace. By contrast, Belgium and Germany both have a higher incidence of a negative psychosocial environment for employees. Bearing in mind that health outcomes are connected to a variety of factors, it is reasonable to suggest that in Slovenia poorer working conditions could result in worse consequences for employees’ health. It could be deduced that the relatively better social environment at work in Spain contributes to better well-being at ages 45–54, or there could be latent institutional factors – such as better healthcare policies – which are behind this improvement.

Working time and work–life balance

As noted earlier, factors such as the duration of working time and employee flexibility in working time can have an impact on both health and well-being and work–life balance.

The four countries differ according to working time patterns, and more specifically in working hours. In Slovenia, employees tend to work longer hours: around 15% of employees at 50 years of age work more than 48 hours a week – nearly double the rate for workers of the same age in Belgium, Germany and Spain. Other divergences emerge in the trends across the life course: in Belgium and Germany, employees are more likely to be working long hours at older ages (this reversing only after ages 55 and 60 respectively), while the opposite is the case in Spain, where longer hours become less common with age.

Shorter hours normally allow better work–life balance and are of particular importance for older workers’ motivation to continue in work. A higher share of older employees work fewer than 34 hours per week in Belgium (40%) and Germany (35%) than in Slovenia (9%) and Spain (25%). However, in relation to working time flexibility, Slovenia stands out among the central and eastern European countries in having a higher share of workers who are able to work with some flexibility. Out of the four selected countries, the country with the most opportunities for flexible working time is Belgium. However, regarding age patterns, there is a small but persistent increase in flexibility for all four countries.

Another relevant indicator in terms of work–life balance is the possibility of taking an hour off when needed for personal matters. In this regard, Belgium also stands out as the country with the best conditions: at prime age (45 years), up to 70% of employees enjoy this possibility. In Spain, this possibility becomes more available with age; in Belgium and Germany, it becomes available after the age of 60.

In summary, with respect to work–life balance, Belgium offers better opportunities across the life course, including possibilities for flexible working time at prime age, and both flexible working time and shorter hours at older age; the difference between Belgium and the

other countries under consideration is especially relevant at prime age. Very likely, the working time patterns of Belgium facilitate the better work–life balance of employees in that country.

Career prospects

With regard to indicators related to prospects, participation in training is generally greater in Belgium than in the other three countries. In general, participation increases with age until roughly prime age in Germany, Slovenia and Spain and then starts a slow but steady decline. However, for Belgium, participation in training remains at a high level across the life course, a strong decline only appearing after age 55. Participation in training is clearly greater in Belgium for employees aged 30–55, followed by Germany and Slovenia. In relation to the type of contract, employees in Spain and Slovenia report a higher share of temporary jobs, being fairly high at a younger age for both countries. In addition, temporary work for older workers is more common than in the other two countries.

Employees in Slovenia and Spain experience greater job insecurity, especially those in the younger cohort. Belgium and Germany (and to some extent Slovenia) are countries where employability and prospects tend to worsen with age. By contrast, in Spain, prospects are lower from a young age but do not decline as much as in the other countries with age. Taking all prospects-related indicators together, it is difficult to highlight one specific country as all four differ in their characteristics. What can be said, though, is that training is more prevalent in Belgium, and job insecurity is an issue for younger employees in Slovenia and Spain.

Analysis of country differences in relation to sustainable work

The duration of working life is related not only to working conditions, but also to social norms in relation to retiring, legal retirement age and opportunities for early retirement. A good example is **Belgium**, a country that rates better in overall working conditions but has a relatively shorter duration of working life. This possibly relates to the fact that Belgium has the highest percentage of gross domestic product (GDP) expenditure on early retirement, with many workers leaving the labour market earlier (Eurostat, 2016). This section analyses the labour market policies, demographic trends and institutional characteristics of the four countries selected above in light of their respective working conditions and outcomes, with the aim of identifying country-specific remedies. In addition to data from the EWCS, this section uses information from Eurofound's work on extended working life (Eurofound, 2017) and the interactive visual presentation of the European Parliament pilot project on the health and safety of older workers (EU-OSHA, 2017).

Belgium has a relatively older population, but the extent of demographic ageing is projected to be less pronounced

than for the EU as a whole. Therefore, the high level of early retirement might not represent a major issue, given that Belgium has a larger share of employees reporting good sustainable work-related outcomes. Nonetheless, the shorter duration of working life in Belgium leaves room for improvement, particularly in relation to the issues with the social environment work identified in the EWCS, and for working hours at old ages. It could help that Belgium put in place new legislation on psychosocial risks at work on 1 September 2014. The legislation introduces a wider definition of psychosocial risks that includes violence and harassment at work (the EWCS showed higher levels of these in Belgium than in the other three countries). If successful, this could lead to improved employment rates for older workers. Belgium's social partners have also reached national collective agreements for companies to implement action plans to employ older workers, agreements that include the improvement of working conditions.

The robust welfare system in Belgium contributes, to some extent, towards sustainable work by improving work–life balance and the health of employees, but the promotion of early retirement may yet jeopardise the extension of working life.

More recent measures to improve working conditions in relation to the extension of working life include supporting part-time work and women's participation in the workforce. New measures have been suggested, such as the 'recognition of tedious working conditions' according to four criteria: work environment, work organisation, security risks, and mental or emotional risks. The recognition of these criteria will allow employees to retire early or to increase the amount of their pension. These types of measure can address challenges related to specific occupations, as presented in Chapter 4. Another initiative consists of ending the limit of 45 years for calculating the pension, and taking into account all the years spent working; this measure could contribute to employees working for longer.

The population of **Spain** had already aged significantly by 2010. The median age today is more or less the same as in the EU population as a whole (around 42 years). The ageing of the Spanish population is predicted to continue and the old-age dependency ratio will increase from 26% in 2012 to 54% in 2060. Policies have been mainly focusing on increasing older workers' employment rates. The employment rate of workers aged between 55 and 64 in Spain has increased since 2002, although not as rapidly as in the EU as a whole, and it is still below the EU28 average. According to the analysis of the EWCS data, improvements in relation to physical risks or work–life balance and training could contribute to extending working life and boosting the employment rates of older workers. However, making work more sustainable has not been a particular policy priority in Spain to date.

Some recent measures for extending working life are related to work combined with a pension (Royal Decree 5/2013). Early retirement is currently restricted to

a number of arduous jobs, and therefore does not cover a wide range of occupations. Efforts to extend outwards the legal retirement age could benefit from revisiting the criteria for the definition of arduous jobs and/or early retirement conditions.

In **Germany**, population ageing started relatively early, since 1960. As a result, workforce ageing has been a policy priority for many years. The rising median age, currently 45 years, is projected to plateau at around 50 years by 2040. Germany also has a longer than average duration of working life and, after Sweden, is the EU Member State with the highest employment rate for the age group 55–65.

According to analysis of the EWCS data, aspects of the psychosocial environment could be improved. In 2013, ‘psychological risk factors’ were added to the Occupational Safety and Health Act. In particular, employers have to conduct workplace risk assessments of physical and psychological risk factors (*Arbeitsschutzgesetz* – Labour Act – paragraph 5). This type of initiative is relevant in a country where the majority of those who retire early do so for health reasons. Nevertheless, policies seem to be needed beyond the workplace because – apart from the social environment – other factors that can impact health negatively seem to be relatively good.

The expected shortage of skilled labour is a concern. The German model of production focuses on the production of high-quality, high-tech goods and thus relies heavily on skilled labour. Although levels of participation in training are relatively high, improvements could be made to maintain opportunities for training for older workers.

In 2016, the public policy debate focused on flexible transitions into retirement. In general, the question of working conditions does not at present feature in the pension debate, and the legislation does not prescribe any exception to the rules for people working under very strenuous working conditions. However, there are some recent initiatives in relation to the employability of older workers. For example, the Federal Institute for Vocational Education and Training (BIBB) developed a digital guide

for employees facing strenuous working conditions, to support them in searching and retraining for a new job.

The demographic situation in **Slovenia** is very similar to that in the population of the EU as a whole, with a similar median age (41.7 years) and similar age structure. The ageing of the Slovenian population is predicted to continue, and the old-age dependency ratio to increase from 25% in 2012 to 53% in 2060. Slovenia also has one of the lowest employment rates for employees aged 55–64 in Europe, and the duration of working life is relatively short. In this context, data from the EWCS suggest that there is a need for improvement in relation to employees’ health; issues that need to be addressed include very long hours, notable physical risks and a high level of quantitative demands.

As in the case of Spain, policies in Slovenia have focused mainly on increasing older workers’ employment rates. Following the Employment Relationships Act 2013, greater emphasis has been placed on the employment of older workers, with special rights granted to older workers in terms of opportunities for part-time work or partial retirement; incentives have also been granted to employers to retain older workers in the workplace. This is in line with the government’s strategy to extend working life.

Recent policy measures focus mainly on long working hours, part-time work and protection against lay-off for workers aged 55 and over (MDDSZ, 2016). This is very important in Slovenia, but could be developed to include workers across the life course, especially at prime age, in the areas mentioned above so that a life course perspective is considered.

Contrary to the situation in the other three countries, Slovenia’s welfare system is still in a transitional phase and social partners have a relatively limited role in constructing socioeconomic policies. Social partners have increasingly expressed interest in the issue of the employability of older workers; they are addressing the stereotypes that discourage employers from recruiting older people and seeking to boost older workers’ skills and competencies through training.

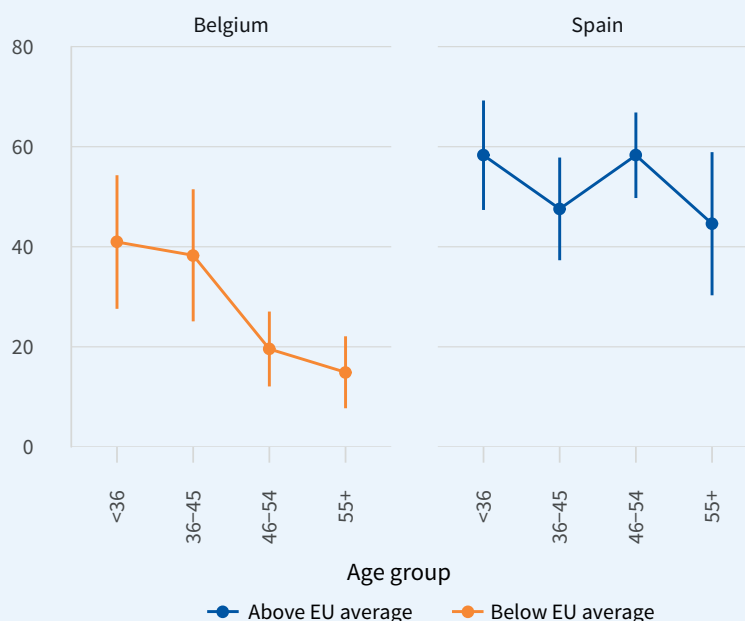
Box 4

Quantitative demands as experienced by cleaners and helpers

Chapter 3 showed how working conditions related to sustainable work vary according to the occupation of the employee. However, there are some contextual characteristics in the different countries that influence the job quality of employees in the same occupations. Some of these have been introduced in this report.

Figure 39 maps the share of employees reporting a high level of quantitative demands (working at high speed and to tight deadlines) for the occupation cleaners and helpers (ISCO-08 2-digit level) in two countries, Belgium and Spain. Higher rates of quantitative demands are reported in Spain than in Belgium, which could reflect institutional factors related to work and labour market characteristics; the last section revealed that employees in Spain generally report higher levels of quantitative demands. There is a general pattern in both countries displaying lower demands among older age groups, but this is slightly more pronounced in Belgium after 35–44 years. It is possible that in both countries, selection effects (linked to opportunities for early retirement) play a role by allowing employees experiencing greater demands to leave those jobs after the age of 55.

Figure 39: Quantitative demands among cleaners and helpers in Belgium and Spain (%)



Note: See note to Figure 24.

From a comparative perspective, a range of interrelated factors determines working conditions; institutional characteristics in each country play an important role in the job quality of employees. Therefore, changing those characteristics can be one of the ways to ensure fairer working conditions and sustainable work across the European Union.

Summary

Country comparative analysis

From Chapter 2 it was concluded that better working conditions contribute to employees' perceived ability to continue working until age 60 – their attitude towards sustainable work. Nevertheless, other aspects of national socioeconomic contexts play a strong role in determining the duration of working life. For example, Belgium scores relatively highly in sustainable work outcomes and working conditions; however, the duration of working life in that country is below the EU28 average, possibly because of the practice of early retirement there. In contrast, Estonia performs far worse in terms of indicators of sustainable work, but has higher labour market participation rates at older ages and for the duration of working life. The rate of early retirement in Estonia is correspondingly low.

Differences by country are evident in both the quality of working conditions and the patterns across age: Denmark, Finland, Ireland and Sweden normally fare better in sustainable work outcomes, while generally the Baltic states and southern European countries report worse outcomes. However, it is also important to understand the different outcomes as worse or better within countries for employees at different ages. Some variables, such as self-reported health status, are worst for older age groups in the Baltic states, for instance, while for other countries age discrepancies are less apparent. Particular outcomes at a particular age can be more relevant for policy attention in one country than in another. For example, a poorer work–life balance at older ages indicates a need for policy interventions in Greece and Hungary.

Data for the selected countries – Belgium, Germany, Slovenia and Spain – highlight the impact of working conditions on sustainable work. For instance, the greater magnitude of the impact of work on health in Slovenia correlates with relatively poor measures of health and well-being at older ages. In contrast, the greater flexibility and shorter working hours afforded to older employees in Belgium correspond with the country's relatively good scores for work–life balance. This comparison also stresses the role of the institutional setting in fostering (or hindering) sustainable work outcomes: employees in Slovenia and Spain, for example, generally report greater job insecurity and negative effects of work on health, yet Spain fares better than Slovenia in terms of outcomes for health and well-being for employees aged 45–54, which suggests the potential of national policies and norms to mediate the influence of working conditions on sustainable work.

The findings can contribute to the implementation of the European social partners' autonomous agreement on active ageing and an intergenerational approach (ETUC-CES et al, 2017). The agreement aims to improve the ability of workers of all ages to stay in the labour market, remaining healthy and active until the legal retirement age. The sustainable outcomes presented could be a good reference point for measuring the achievement of the aims of this agreement.

6 | Conclusions

6 | Conclusions

The factors influencing sustainable work are numerous. Eurofound's concept of 'sustainable work over the life course' means that working and living conditions *support* employees in engaging and remaining in work throughout an extended working life. Recent research has highlighted the impact of a range of factors on the trajectories of employees' working lives: individual characteristics, work-related factors, social norms, the health and education levels of society, and the broader institutional policy context. This report builds on this discussion and focuses on the role of working conditions in shaping sustainable work over the life course.

Data from the EWCS 2015 show that poor working conditions have a negative impact on sustainable work outcomes for all employees, regardless of age. For all age groups, employees who report a high level of exposure to physical risks and high quantitative demands (working at high speed and to tight deadlines), for example, are more likely to experience worse health and poorer work-life balance.⁷ They are also more likely to state that they will not be able to continue working until age 60. The perceived ability to work until age 60 is also linked to the social environment of the workplace: both the quality of management and experiences of adverse social behaviour are found to be significantly associated with such outcomes.

At the same time, the EWCS data reveal that the incidence of certain working conditions varies for employees of different ages. In other words, while working conditions have an undifferentiated influence on all age groups, their prevalence varies depending on employees' age: the relative importance of the outcomes is different, depending on the stage in the worker's life.

Chapter 3 outlines these age-related differences. Certain key working conditions are found to remain stable or deteriorate up to the age of 55. However, employees above the age of 55 report better levels. For instance, employees 55 and older report a lower degree of exposure to physical risks, fewer weekly working hours and greater working time autonomy. Age-related differences are also observed for sustainable work outcomes. In line with reduced quantitative demands, lower weekly working hours and increased access to working time flexibility, older employees also report better work-life balance. Greater working time autonomy is clearly linked to the motivation to work at older age, as confirmed by the literature review in Chapter 1. In this regard, the crucial role of motivation in the context of sustainable work should be further investigated.

However, the findings also show relatively less participation in training among older employees, especially as regards on-the-job training. Moreover, older employees struggle with a deficit of career prospects. Since demographic change poses a challenge to maintaining and updating the workforce's skills, it is important to boost the share of older employees involved in learning and on-the-job training. Therefore, the implementation of the first principle of the European Pillar of Social Rights, pertaining to on-the-job training for employees older than 45, should be a priority.

Those aged 45–54, meanwhile, on average report fewer job demands, but their level of exposure to physical risks remains almost identical to that of younger workers. This could imply a process of adaptation in which employees adjust to the demands of work and thus reduce the perceived impact. However, exceptions to this pattern were found for certain working conditions in specific occupations.

A critical issue for prime age employees (aged 35–44 years) is work-life balance. As they tend to work longer hours and have more care responsibilities, they report greater difficulties in achieving a balance between work and life compared with other age groups.

Younger employees (aged 34 and under) report mixed results for their social environment. While they are more likely to experience social support and positive encouragement from colleagues and their manager, they also endure more frequent experiences of adverse social behaviour, which particularly affects younger women. Employees aged 34 and under are also most likely to work under temporary contracts, which may contribute to the heightened job insecurity reported for this age group. Moreover, having temporary contracts for a long time can have a negative impact on skills development and career prospects. In light of this, the rise of atypical contracts and non-standard employment among Europe's younger generations is a development deserving greater attention (Eurofound, 2015b).

Because working conditions vary by occupation, an analysis of working conditions from the age perspective has to consider differences by occupation. Chapter 4 confirms that, generally speaking, lower occupational levels are associated with employees of all ages enduring poorer health and well-being. Additionally, career prospects are generally worse for employees in low-level occupations for all age groups.

More specifically, some occupations demonstrate consistently demanding working conditions throughout

⁷ 'Quantitative demands' comprise the following: having enough time to get the job done, working at high speed, having tight deadlines, having more than three pace determinants and being frequently interrupted in a disruptive manner.

the life course. This is the case for machine operators and metal workers in relation to physical risks and lack of working time autonomy, and to labourers in relation to a high level of quantitative demands. The persistence of these poor working conditions from an early age likely accentuates their negative impact over time and contributes to the fact that these three professions report below average health at an earlier age (35–44 years) than other occupations. This echoes earlier findings mentioned in the literature review, which showed that workers in low-skilled occupations are prone to worse health outcomes (and by extension early labour market exit) when they remain in the same occupation throughout their working lives. Therefore, addressing the most difficult conditions for some middle- and low-level occupations is an essential contribution to extending working life until legal retirement age for these employees.

Some occupations exhibit unique features of working life: employees working as health professionals have relatively good career prospects, even at an older age (55 and over), yet also report greater quantitative demands and psychosocial risks across all ages. These psychosocial risks are also worth considering for their cumulative effects, as this line of work can prove less sustainable for employees if they spend most of the working lives in these occupations.

In the context of a rising legal retirement age for most countries in the EU, specific attention is needed for occupations where adverse working conditions have a consistently negative effect on sustainable work outcomes throughout the life course. Policies should consider the different conditions of employees in different occupations and seek to either improve these conditions or support employees' career transitions so that they can work until retirement age (Eurofound, 2016b). In this regard, it is not only the physical context that has to be considered, but also the conditions related to work organisation and the social environment, including psychosocial risks. This could also be applied to approaches to tackle the situation of arduous jobs, in countries where this concept is defined. So far, criteria for defining a job as arduous consider mainly the physical environment and pay little attention to psychosocial risks.

For policies aiming to achieve fairer working conditions, the occupational analysis is also very relevant when coupled with a sustainable work approach, since it accounts for the differentiated outcomes of occupational groups over the life course. For example, some poorer conditions were observed for employees in both high- and low-level occupations, yet outcomes remained strongly tied to occupational status. For example, at the ISCO two-digit level, health professionals and sales and production managers report a high level of physical risks and quantitative demands, respectively. This is also the case for many low-level occupations, such as craft workers and stationary plant and machine operators.

However, the outcomes observed do not exactly correspond to these conditions, as measures of health and well-being are far better for professionals and managers than for lower level occupations – despite being exposed to similar conditions. This could indicate that higher-skilled occupations buffer the negative consequences of adverse working conditions through better monetary compensation; conversely, for employees in low-level occupations, a difficult work environment throughout the life course may represent a greater burden and pose questions of fairness.

Chapter 5 offers insights into the role of institutional frameworks and the broader socioeconomic context by analysing working conditions across the EU28. Unsurprisingly, working conditions vary by country, not least in the comparison of different age groups. For example, compared with other Member States, Greece and Hungary report unparalleled levels of poor work–life balance among older employees. Differences are also evident when comparing working conditions for the same occupation across Member States.

The analysis also juxtaposes sustainable work outcomes with the expected duration of working life in a given country. Belgium, for example, with a generally good ranking for sustainable work over the life course, reports a shorter duration of working life. By contrast, Estonia, with poorer results for sustainable work outcomes, reports a longer duration of working life and higher employment rates at older ages. These differences could be due to different institutional arrangements (including financial compensation) that facilitate or hinder early retirement. It follows that, while improving working conditions can contribute to sustainable and extended working lives, national institutions and norms continue to play an important role in relation to actual participation in the labour market.

These differences across countries should be considered not only for national level policies, but also for EU-level initiatives, including the implementation of the Social Partners' Framework Agreement on Active Ageing (ETUC-CES et al, 2017).

Finally, changes in the world of work, including digitalisation, along with the ageing of European societies, might produce different trends in relation to sustainable work in the future. The growth in non-standard contracts and employment mentioned above, as well as changes in social protection, could have significant implications for younger cohorts of workers as they reach older ages. In addition, the opportunities for working remotely, in combination with the potential reduction of physically demanding work brought about by digitalisation and technological change, could facilitate greater access to employment for older workers. Future Eurofound research will address the interaction of these and other trends affecting the world of work and the ways in which they affect workers of different ages.

References

All Eurofound publications are available at www.eurofound.europa.eu

- Anxo, D., Ericson, T., Herbert, A. and Rönmar, M. (2017), *To stay or not to stay. That is the question: Beyond retirement: Stayers on the labour market*, Linnaeus University, Växjö, Sweden.
- Armstrong-Stassen, M. and Ursel, N. D. (2013), 'Perceived organizational support, career satisfaction, and the retention of older workers', *Journal of Occupational and Organizational Psychology*, Vol. 82, No. 1, pp. 201–220.
- Barnes-Farrell, J. L. and Matthews, R. A. (2007), 'Age and work attitudes', in Shultz, K. and Adams, G. A. (eds.), *Aging and work in the 21st century*, Lawrence Erlbaum Associates, Mahwah, New Jersey, USA, pp. 139–162.
- Begall, K., Mills, M. and Ganzeboom, H. B. G. (2014), 'Non-standard work schedules and childbearing in the Netherlands: A mixed-method couple analysis', *Social Forces*, Vol. 93, No. 3, pp. 1–32.
- Bollen, K. A. (1989), *Structural equations with latent variables*, Wiley, New York.
- Bollen, K. A. and Pearl, J. (2013), 'Eight myths about causality and structural equation models', in Morgan, S.L. (ed.), *Handbook of causal analysis for social research*, Springer, New York, pp. 301–328.
- Canivet, C., Aronsson, G., Bernhard-Oettel, C., Leineweber, C., Moghaddassi, M., Stengård, J. et al (2017), 'The negative effects on mental health of being in a non-desired occupation in an increasingly precarious labour market', *SSM-Population Health*, Vol. 3, pp. 516–524.
- Corral, A., Durán, J. and Isusi, I. (2014), *Employment opportunities for people with chronic diseases*, IKEI Research and Consulting, San Sebastián, Spain.
- De Preter, H., Van Looy, D. and Mortelmans, D. (2013), 'Individual and institutional push and pull factors as predictors of retirement timing in Europe: A multilevel analysis', *Journal of Aging Studies*, Vol. 27, No. 4, pp. 299–307.
- DeSalvo, K. B., Bloser, N., Reynolds, K., He, J. and Muntner, P. (2006), 'Mortality prediction with a single general self-rated health question', *Journal of General Internal Medicine*, Vol. 21, No. 3, pp. 267–275.
- Desmette, D. and Gaillard, M. (2008), 'When a "worker" becomes an "older worker": The effects of age-related social identity on attitudes towards retirement and work', *Career Development International*, Vol. 13, No. 2, pp.168–185.
- de Wind, A., van der Pas, S., Blatter, B. M. and van der Beek, A. J. (2016), 'A life course perspective on working beyond retirement: Results from a longitudinal study in the Netherlands', *BMC Public Health*, Vol. 16, No. 1, pp. 499–511.
- Ebbinghaus, B. and Radl, J. (2015), 'Pushed out prematurely? Comparing objectively forced exits and subjective assessments of involuntary retirement across Europe', *Research in Social Stratification and Mobility*, Vol. 41, pp. 115–130.
- Emslie, C. and Hunt, K. (2009), "'Live to work" or "work to live"? A qualitative study of gender and work-life balance among men and women in mid-life', *Gender, Work and Organization*, Vol. 16, No. 1, pp. 151–172.
- ETUC (European Trade Union Confederation), European Federation of Building and Woodworkers, European Federation of Public Service Unions, European Transport Workers' Federation, IndustriAll, UAI Europa et al (2016), *Better understanding of 'arduous occupations' within the European pension debate*, Brussels.
- ETUC-CES, BusinessEurope, CEEP and UEAPME (2017), *European social partners' autonomous framework agreement on active ageing and an intergenerational approach*, Brussels.
- EU-OSHA (European Agency for Safety and Health at Work) (2014), *Calculating the costs of work-related stress and psychosocial risks: A literature review*, Publications Office of the European Union, Luxembourg.
- EU-OSHA (European Agency for Safety and Health at Work) (2015), *Second European survey of enterprises on new and emerging risks (ESENER-2)*, Publications Office of the European Union, Luxembourg.
- EU-OSHA (European Agency for Safety and Health at Work) (2017), Country profiles. *Safer and healthier work at any age*, web page, accessed 24 October 2017.
- EU-OSHA, Cedefop, Eurofound and EIGE (2017), *Towards age-friendly work in Europe: A life-course perspective on work and ageing from EU agencies*, Publications Office of the European Union, Luxembourg.
- Eurofound (2008), *Working conditions of an ageing workforce*, Publications Office of the European Union, Luxembourg.
- Eurofound (2012a), *Employment trends and policies for older workers in the recession*, Publications Office of the European Union, Luxembourg.
- Eurofound (2012b), *Sustainable work and the ageing workforce*, Publications Office of the European Union, Luxembourg.

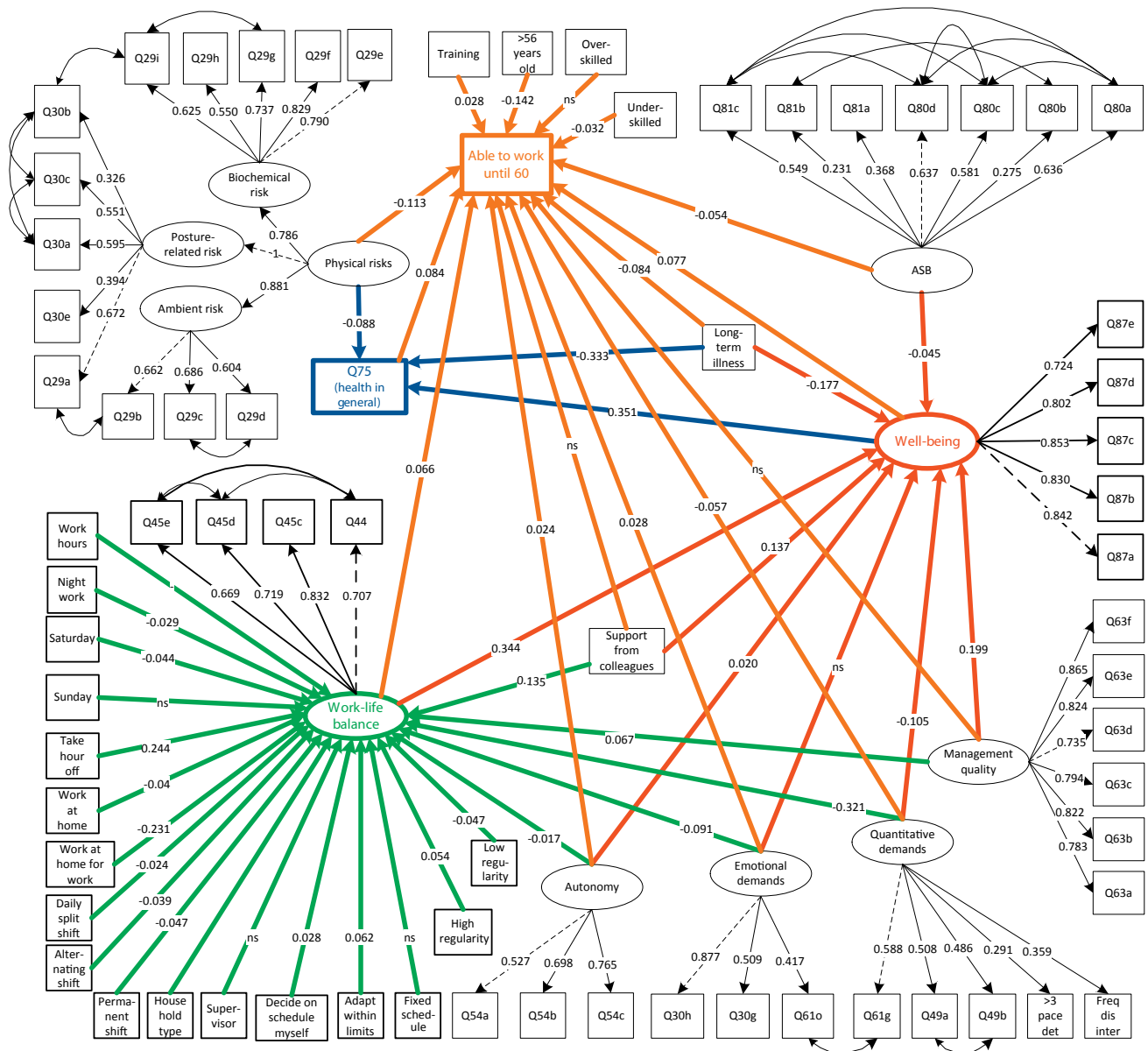
- Eurofound (2012c), *Working time and work–life balance in a life course perspective*, Dublin.
- Eurofound (2012d), *Trends in job quality in Europe*, Publications Office of the European Union, Luxembourg.
- Eurofound (2013), *Role of governments and social partners in keeping older workers in the labour market*, Dublin.
- Eurofound (2015a), *Sustainable work over the life course: Concept paper*, Publications Office of the European Union, Luxembourg.
- Eurofound (2015b), *New forms of employment*, Publications Office of the European Union, Luxembourg.
- Eurofound (2016a), *Sixth European Working Conditions Survey – Overview report*, Publications Office of the European Union, Luxembourg.
- Eurofound (2016b), *Changing places: Mid-career review and internal mobility*, Publications Office of the European Union, Luxembourg.
- Eurofound (2017), *Working time patterns for sustainable work*, Publications Office of the European Union, Luxembourg.
- European Commission (2016), *A new skills agenda for Europe*, COM(2016) 381 final, Brussels.
- European Council (2000), *Council Directive 2000/78/EC of November 2000 establishing a general framework for equal treatment in employment and occupation*, Brussels.
- European Framework for Action on Mental Health and Well-being (2016), *EU joint action on mental health and well-being*, Final conference 21–22 January, Brussels.
- European Parliament and the European Council (2003), *Directive 2003/88/EC concerning certain aspects of the organisation of working time*, Brussels.
- Eurostat (2012), *Labour Force Survey statistics: Transition from work to retirement*, web page, accessed 24 October 2017.
- Eurostat (2016), *Statistics explained. Social protection statistics: Pension expenditure and pension beneficiaries*, web page, accessed 24 October 2017.
- Eurostat (2017a), *Statistics explained. Population structure and ageing*, web page, accessed 24 October 2017.
- Eurostat (2017b), *Product dataset. Duration of working life*, web page, accessed 24 October 2017.
- Gillen, M., Yen, I.H., Trupin, L., Swig, L., Rugulies, R., Mullen, K. et al (2007), 'The association of socioeconomic status and psychosocial and physical workplace factors with musculoskeletal injury in hospital workers', *American Journal of Industrial Medicine*, Vol. 50, No. 4, pp. 245–260.
- Idler, E. L. and Benyamini, Y. (1997), 'Self-rated health and mortality: A review of twenty-seven community studies', *Journal of Health and Social Behavior*, Vol. 38, No. 1, pp. 21–37.
- Inceoglu, I., Segers, J. and Bartram, D. (2012), 'Age-related differences in work motivation', *Journal of Occupational and Organizational Psychology*, Vol. 85, No. 2, pp. 300–329.
- Jansen, A. (2013), 'Cultural retirement patterns: The impact of societal norms and values on the labor market participation of older people in Europe', *Kolner Zeitschrift für Soziologie und Sozialpsychologie*, Vol. 65, No. 2, pp. 223–251.
- Jones, M. K., Latreille, P. L., Sloane, P. J. and Staneva, A. V. (2013), 'Work-related health risks in Europe: Are older workers more vulnerable?', *Social Science and Medicine*, Vol. 88, pp. 18–29.
- Karasek, R. A. (1979), 'Job demands, job decision latitude, and mental strain: Implications for job redesign', *Administrative Science Quarterly*, Vol. 24, No. 2, pp. 285–308.
- Leka, S. and Jain, A. (2017), *Mental health in the workplace in Europe: Position paper*, EU-Compass for Action on Mental Health and Well-being, Brussels.
- Loretto, W. and White, P. (2006), 'More work and retirement: Older workers' perspectives', *Social Policy Society*, Vol. 5, No. 4, pp. 495–506.
- Lozano, M., Hamplová, D. and Le Bourdais, C. (2016), 'Non-standard work schedules, gender, and parental stress', *Demographic Research*, Vol. 34, No. 9, pp. 259–284.
- Lunau, T., Siegrist, J., Dragano, N. and Wahrendorf, M. (2015), 'The association between education and work stress: Does the policy context matter?', *PLOS ONE*, Vol. 10, No. 3, pp. 1–17.
- MDDSZ (Ministry of Labour, Family, Social Affairs and Equal Opportunities) (2016), *The elderly and the labour market in Slovenia*, Ljubljana, Slovenia.
- Méda, D. and Vendramin, P. (2017), *Reinventing work in Europe. Value, generations and labour*, Palgrave MacMillan, Basingstoke, UK.
- Melchior, M., Niedhammer, I., Berkman, L. F. and Goldber, M. (2003), 'Do psychosocial work factors and social relations exert independent effects on sickness absence? A six-year prospective study of the GAZEL cohort', *Journal of Epidemiology and Community Health*, Vol. 57, No. 4, pp. 285–293.
- Natali, D., Spasova, S. and Vanhercke, B. (2016), *Retirement regimes for workers in arduous or hazardous jobs in Europe: A study of national policies*, European Commission, Brussels.
- Pohrt, A. and Hasselhorn, H. M. (2015), 'Domain: Work factors', in Hasselhorn, H. M. and Apt, W. (eds.), *Understanding employment participation of older workers: Creating a knowledge base for future labour market challenges*, BMAS/BAuA, Berlin.

- Porcellato, L. F., Carmichael, C., Hulme, B., Ingham, C. and Prashar, A. (2010), 'Giving older workers a voice: Constraints on the employment of older people in the north west of England', *Work, Employment and Society*, Vol. 24, No. 1, pp. 85–110.
- Radl, J. (2013), 'Labour market exit and social stratification in western Europe: The effects of social class and gender on the timing of retirement', *European Sociological Review*, Vol. 29, No. 3, pp. 654–668.
- Reeuwijk, K., de Wind, A., Westerman, M., Ybema, J. F., van der Beek, A. and Geuskens, G. (2013), "'All those things together made me retire": Qualitative study on early retirement among Dutch employees', *BMC Public Health*, Vol. 13, No. 1, p. 516.
- Rosseel, Y. (2012), 'lavaan: An R package for structural equation modeling', *Journal of Statistical Software*, Vol. 48, No. 2, pp. 1–36.
- Schmitz, L. (2016), 'Do working conditions at older ages shape the health gradient?', *Journal of Health Economics*, Vol. 50, pp. 183–197.
- Scott, J. (ed.) (2014), *Oxford dictionary of sociology*, Oxford University Press, Oxford, UK.
- Stansfeld, S., Shipley, M., Head, J. and Fuhrer, R. (2013), 'Work characteristics and personal social support as determinants of subjective well-being', *PLOS ONE*, Vol. 8, No. 11, pp. 1–8.
- Thorsen, S. P., Jensen, P. H. and Bjørner, J. (2016), 'Psychosocial work environment and retirement age: A prospective study of 1,876 senior employees', *International Archives of Occupational and Environmental Health*, Vol. 89, No. 6, pp. 891–900.
- Vancea, M. and Utzet, M. (2017), 'How unemployment and precarious employment affect the health of young people: A scoping study on social determinants', *Scandinavian Journal of Public Health*, Vol. 45, No. 1, pp. 73–84.
- Varekamp, I., van Dijk, F. J. and Kroll, L. E. (2013), 'Workers with a chronic disease and work disability', *Bundesgesundheitsblatt Gesundheitsforschung Gesundheitsschutz*, Vol. 56, No. 3, pp. 406–414.
- Vendramin, P. and Valenduc, G. (2014), *A gender perspective on older workers' employment and working conditions*, Working Paper 2014.03, European Trade Union Institute, Brussels.
- Volkoff, S., Cristofari, M. F., Gadbois, C., Laville, A., Molinié, A. F., Prunier-Poulmaire, S. et al (2005), *L'ergonomie et les chiffres de la santé au travail: Ressources, tensions et pièges*, Octares, Toulouse, France.
- Waginger, U. (2015), 'Domain: Motivation to work', in Hasselhorn, H.M. and Apt, W. (eds.), *Understanding employment participation of older workers: Creating a knowledge base for future labour market challenges*, Federal Ministry of Labour and Social Affairs, Berlin.
- Wahrendorf, M., Blane, D., Bartley, M., Dragano, N. and Siegrist, J. (2013a), 'Working conditions in mid-life and mental health in older ages', *Advances in Life Course Research*, Vol. 18, No. 1, pp. 16–25.
- Wahrendorf, M., Dragano, N. and Siegrist, J. (2013b), 'Social position, work stress, and retirement intentions: A study with older employees from 11 European countries', *European Sociological Review*, Vol. 29, No. 4, pp. 792–802.
- Wahrendorf, M., Akinwale, B., Landy, R., Matthews, K. and Blane, D. (2017), 'Who in Europe works beyond the state pension age and under which conditions? Results from SHARE', *Journal of Population Ageing*, Vol. 10, No. 3, pp. 269–285.

Annex: Further information

Figure A1 shows the full model specification and the standardised coefficients resulting from the estimation. The numbers in the figure represent the numbers of the questions in the questionnaire. Following customary SEM-notation, each arrow represents a regression equation, except for double-headed arrows, which represent covariance between the error terms of the corresponding regressions. The squares represent observed variables in the EWCS and the ellipses represent latent variables that have been included in the model by means of confirmatory factor analysis.

Figure A1: Results of the structural equation model



The regressions of being able to work until age 60 include controls for age, age squared, sex, country, educational level and occupation. Also, a separate variable indicating whether someone is 56 years or older was included to cater for the fact that those respondents had received a slightly different version of the questionnaire. The regressions of work-life balance, subjective well-being and health in general include controls for age, education and sex. Country and occupation were excluded as control variables because the effects were not significantly different from zero. In addition, work-life balance was controlled for household type.

Table A1 provides a summary of the importance of work-related factors over the life course.

The model was estimated in R using the software package *lavaan* (Rosseel, 2012). Variables of ordinal nature (for example, a Likert scale) were included; *lavaan* caters for the estimation of non-continuous variables by selecting the appropriate estimator, in this case diagonally weighted least squares (DWLS). Additional model information is given in Table A2.

Table A1: Importance of work-related factors over the life course

Work-related factors	Younger workers (under 35)	Mid-career (35–54)	Older workers (55+)
Skills and training		Active labour market policies to train workers and boost their qualifications, even at later career stages, have been proven to reduce the negative consequences of low education or health-related stress.	Older workers who are given opportunities to learn new skills and/or participate in training intend to stay longer with their employers. The lowest rates of reporting 'learning new things' at work and participating in employer-sponsored training are among workers aged 55 and above.
Career prospects	Younger workers are likelier to be motivated by material rewards and career progression.	Men who experience involuntary job loss or instability at this stage are likelier to suffer depressive symptoms. Women are more likely to experience low control and low rewards.	
Autonomy and flexibility			Job autonomy and a preference for flexible and controlled hours are often cited as reasons for continuing work beyond retirement age.
Working hours	Voluntary non-standard hours are shown to facilitate a better work–life balance for workers during a transition to parenthood.		
Work-life balance		Transitional periods (particularly parenthood) highlight the importance of work–life balance for mid-career workers, especially women. One study found a strong gravitation among women aged 50–52 towards 'family-bound' life, despite full-time work.	Nearly 60% of women (and 50% of men) aged 50 and above say they are not able to sustain work beyond 60 due to pressures on work–life balance.
Psychosocial stress and job strain	The proportion of workers experiencing high job intensity and low autonomy is highest among younger cohorts.		As workers approach the years leading to retirement, there is a greater correlation between psychosocial work conditions and health.
Physical demands	The ergonomic risk index is found to decrease with age; younger workers are more likely to be exposed to physical risks.		Older workers are likelier to report adverse health outcomes, suggesting that health is a matter of cumulative strain over time.
Occupation and socioeconomic status	Younger workers are most likely to be working in precarious, temporary or non-desired occupations. Findings suggest that such forms of employment render young people particularly vulnerable to health problems.		

Source: Begall, et al, 2014; Emslie and Hunt, 2009

Table A2: Additional model information

Number of observations	20,000
Degrees of freedom	4,536
Estimator	DWLS
Comparative fit index (CFI)	0.914
Tucker–Lewis index (TLI)	0.910
Root mean square error of approximation (RMSEA)	0.033
Standardised root mean square residual (SRMR)	0.037

Demographic change is changing the face of working life across the EU. The increased demand on a shrinking pool of workers to provide for the social needs of an ageing population is leading to increases in the employment rate of older workers and a lengthening of working life. Policy reforms have – on the whole – focused on raising the statutory retirement age and providing financial incentives for older workers to remain in work beyond retirement age. However, a range of other factors also influence workers' decision to continue working into old age – including health and well-being, work–life balance, career prospects and job security, and working conditions such as autonomy, hours of work and psychosocial aspects of the workplace. This report analyses these factors in depth for the 28 EU Member States, using data from the latest European Working Conditions Survey (EWCS 2015) and in the context of Eurofound's concept of 'sustainable work over the life course'.