Promoting an Age-Inclusive Workforce

LIVING, LEARNING AND EARNING LONGER

OECD

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OECD
BETTER POLICIES FOR BETTER LIVES

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Foreword

By 2050, more than four in ten individuals in the world's most advanced economies are likely to be older than 50. The workforce is ageing even more rapidly as smaller cohorts of younger people enter work at a later age and older people are staying on longer at work. Inherently, both business and economic success and productivity will be increasingly tied to that of older workers. If employers and other key stakeholders are to adapt to ongoing changes in the world of work – now accelerated by the COVID-19 pandemic – they will need to re-evaluate their policies and practices with an eye toward an age-inclusive workforce.

The demographic trends are working in favour of multigenerational workplaces with a greater mix of workers at all ages rather than a pyramid of much larger numbers of younger workers and relatively few older workers. However, rather than being age-blind, both public employment and retirement policies and corporate practices are often closely tied to the age of workers rather than to their actual work capacity and individual needs. Thus, despite older adults now being healthier and better educated than ever before, their talent often remains underutilised and overlooked. This will have to be turned around.

Corporate executives increasingly understand and value age diversity. According to a 2020 global survey of corporate executives undertaken by AARP in 36 OECD countries, 83% reported that a multigenerational workforce was valuable to their organisation's success and growth. Nevertheless, many employers are struggling to establish effective policies that continue to support workers' living, learning and earning at older ages. The same survey revealed that fewer than 5% of employers have put concrete polices in place such as unbiased recruiting processes, phased retirement or return-to-work programmes to recruit and retain an age-diverse workforce. Part of this inaction is fuelled by widespread misconceptions about the strengths and capabilities that different generations bring to the workplace.

This report debunks several myths and demonstrates the positive impact of age diversity and inclusion on a firm's long-term competitive growth and organisational resilience. It builds on a unique collaboration between OECD, AARP and the World Economic Forum, which has engaged more than 50 global employers – representing over 2 million employees and USD 1 trillion in annual revenue. The report presents evidence on promising approaches, practical examples and ideas for successful multigenerational workplaces and provides a checklist on what employers can do to support and sustain age-friendly workplaces. Findings in this report complement *a digital learning platform* for employers to recognise the benefits of an age-inclusive workforce as an untapped source of growth.

Ultimately, workplace policies and practices cannot be implemented in isolation for specific groups at specific times in their careers – it is not about targeting one age group at the perceived expense of another. Employers will only succeed if they develop initiatives in the context of nurturing an age-diverse workplace and taking a life-cycle perspective with supportive public policies and good social dialogue. Doing so, will benefit all of us as well as future generations in terms of greater prosperity and well-being.

Stefano Scarpetta,
Director of Employment, Labour and Social Affairs

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The report benefited greatly from comments from AARP and WEF as well as information gathered through regular exchanges with members of the learning collaborative Living, Learning and Earning Longer (LLEL). The LLEL engaged nearly 100 global executives in regional roundtables across Europe, Asia and North America to identify and share multigenerational and inclusive workforce practices. The initiative also engaged over 50 global employers and a number of knowledge partners to share robust evidence and identify knowledge gaps as well as collaborate on new research in this field (see list below).

Partnering organisations of Living, Learning and Earning Longer (LLEL)

Partnering organisations	
Adecco	HSBC
Aegon	Infosys
AIG	Invesco
Allianz	Investec
Amgen	Kobo
Aquent	ManpowerGroup
Atos	Manulife
Aviva	McKinsey & Company
Avnet	Mercer
Bank of America Merrill Lynch	ModSquad
Bank of Montreal	Mongeral Aegon
Barclays	National Association of Federally-Insured Credit Unions
Biogen	Natixis
BlackRock	Old Mutual
Burning Glass Technologies	Pitney Bowes
Clear Channel Outdoor	Project Management Institute
Critical Mass	PZU
Fidelity Investments	Randstad
Forbes	S&P Global
Fortune	SAP
Freddie Mac	SmartBridge Health
General Mills	TD Ameritrade
Generali	The Hartford
Guardian Life	Uneva Health
Home Instead Senior Care	UnitedHealth Group
Knowledge partners	
Aging Studies Institute (Maxwell School of Citizenship and Public Affairs at Syracuse University)	MIT AgeLab
Canadian Association of Retired Persons (CARP)	National Academy of Social Insurance
CanAge – Canada	Partners in Change – New Zealand & Australia
Centre for Ageing Better – UK	Sau Po Centre on Ageing (The University of Hong Kong)
Center for the Future of Aging, Milken Institute	Stanford Center on Longevity (Stanford University)
Global Financial Literacy Excellence Center (George Washington University School of Business)	Wise at Work – Hong Kong
Mailman School of Public Health (Columbia University)	

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Executive summary

People are living and working longer than ever before, with four to five generations working side by side. This reflects the positive sides of population ageing and brings big opportunities for business, workers and society. It is estimated that building multigenerational workforces and giving older employees greater opportunities to work could raise GDP per capita by 19% over the next three decades. And contrary to common perceptions, novel evidence across OECD countries shows that older workers can boost firm productivity not only through their own experience and know-how, but also by enhancing team performance via age and skill complementarities between younger and older workers. However, this requires the right policies and practices from employers, governments and through social dialogue to ensure that the benefits of a multigenerational workforce are fully realised.

Unfortunately, for many years, companies, managers and HR functions have been using generational or age labels to guide work practices and policies. This is despite the evidence that workers of all ages are much more alike in their attitudes to work, and broadly value the same things. Furthermore, there is compelling evidence that employers who respond positively to the changing individual needs of employees during their lifecycle and career stages improve their success in attracting, motivating and retaining workers. These workers are likely in turn to exert greater effort on behalf of their company and play a full part in making it efficient and productive.

Employers must act on three fronts in order to make the most of age-inclusive workforces and thrive in the new world of work.

Attracting and retaining talent at all ages

A key starting point is to successfully mobilise a multigenerational workforce by eliminating age bias in recruitment practices and encouraging age-diverse cultures where all workers feel comfortable and appreciated regardless of age. However, age discrimination is still present in many modern workplaces – not only restricting employment choices for older and sometimes even younger workers, but also representing a considerable cost to business. Studies show that age discrimination against those ages 50-plus cost the United States economy USD 850 billion in 2018 alone. Despite considerable global efforts to change mindsets and stereotypes, there remains plenty of scope for taking more robust action. Adopting measures such as strategic workforce planning, for instance, can be a win-win solution. It can help employers move ahead of the market to avoid skill shortages before they appear by hiring based on skill priorities rather than age. Many companies are investing in diversity-training programmes to eradicate conscious and subconscious bias, but they could get better value for their money by targeting to specific individuals or teams e.g. line managers or appointing committees. Both have shown to be more effective in reducing prejudice due to their accountability factor. Moreover, using age-neutral imagery and language in job adverts and descriptions as well as use of software programmes to sort applications automatically can minimise the impact of age-stereotypes in the recruitment process.

Retaining talent is just as important as finding it in the first place. Along with greater returnship programmes and phased retirement, providing opportunities for career and financial planning throughout employees'

lifecycle can act as effective retention policies. The latter in particular not only benefits workers in their mid-careers and beyond as they make plans for their eventual retirement, but helps younger workers as well to successfully negotiate a number of "social milestones" in early adulthood (e.g. transition from education to work, managing student loans, parenthood, mortgages, marriage).

Ensuring a good working environment and a healthy working life

Second, as the productive capacity of all economies and businesses is dependent on having engaged, healthy and skilled workforces, it makes sense for employers to enhance *work attractiveness* to all workers no matter what stage of their lifecycle they have reached. There is robust evidence demonstrating that offering flexible working options supports workers across the life course to prevent burnout, manage family responsibilities and engage in learning. The COVID-19 pandemic has accelerated the shift by many companies towards offering more flexible work arrangements. Nevertheless, telework needs to be carefully designed to meet the needs of workers and employers and maximise worker well-being and productivity. In particular, workers at all ages need to have the digital tools and skills to work from home.

Investing in employee health and well-being at all ages is equally important. Workplace health promotion initiatives such a smoking cessation programmes, exercise classes, healthy eating options in staff canteens and other "lifestyle" support interventions have become increasingly common. Unfortunately, the evidence that these programmes are effective in improving health and productivity is not strong. Instead, certain innovative employers recognise the concept of "holistic" well-being, and are concerned for the physical, mental, and social lives of their workers. Well-being programmes, which offer a blend of financial, physical and social/emotional programmes, need to be woven alongside other lifestyle and fitness interventions.

Developing and maintaining skills throughout careers

Last but not least, as people increasingly extend their working lives, it is crucial to promote the continual development of their skills throughout their careers. *Maintaining* skills over the lifecycle through lifelong learning and training improves organisational performance – delivering a skilled workforce, underpinning productivity and efficiency, building the platform for innovation, and increasing employee motivation. However, large differences in the incidence of training across the workforce remain entrenched. Those who are younger, more highly qualified, and on full-time contracts are more likely to receive training than those who are older, lower skilled and working part-time.

There are a range of practices that can effectively promote continuous development while at work. Mid-life career reviews are simple and cost-effective ways to identify upskilling and reskilling needs matched to the company's changing skills requirements. In the United Kingdom, it is estimated that a mid-life career review costs between GBP 50-350 per client but generates a substantial return in terms of increased motivation and confidence levels and a greater take-up of training and learning opportunities. Today, mentoring and coaching to develop skills and competences are amongst the most widespread tools in talent management. At the organisational level, both programmes can increase productivity provided seniors managers are committed to it and provide an appreciative environment. For all training measures, the best practice is to undertake post-training evaluation to assess whether learning objectives have been met and the impact on work performance.

Action plan: Reaping the benefits of the multigenerational workforce

Employers are living in a period of great uncertainty. Some of the changes sweeping across the world are predictable such as rapid population ageing while others are less certain such as the exact pace and nature of the digital revolution, let alone the far less predictable and devastating impact of the COVID-19 pandemic. Responding to these changes requires a sharper focus on building resilience within organisations and bringing on board the full potential of their talent pool irrespective of age. With the right employer practices and tools, organisations can be more agile, more inclusive and more productive.

The mega trends shaping populations and the labour market

The populations in major advanced economies across the world are ageing rapidly. By 2050, there will be one person aged 65 and over for every two persons aged 20-64 (i.e. the old-age dependency ratio) in OECD economies compared to one for every three today, and the share of the population aged 50 and older will increase from 37% in 2020 to 45%. This will mean greater numbers of older workers in the workforce in the future.

The dynamics of transitions over the lifecycle are also changing; people stay in full-time education longer, marry later, have children later and their working lives continue beyond what have been considered traditional retirement ages. And societies are striving for greater gender equality – increasingly shared responsibility for parenting and caring between men and women means that more women than ever before work – although COVID-19 has set back some of this progress in many countries. It has become increasingly clear that people's engagement with work varies far more according to their life stage and individual circumstances and preferences than to their biological age, and that employers' success increasingly depends on fully mobilising the potential contribution of older as well as younger people in the workforce.

Beyond these demographic shifts, digitalisation and globalisation are changing the nature and geographic distribution of work, leading to individuals making more frequent career changes and changing the skills needs of employers. Nonetheless, despite older adults now being healthier and better educated than ever before – a trend that will continue despite health shocks such as COVID-19 – their talent often remains underutilised and overlooked.

Living standards across the OECD would be improved substantially by increased participation of older workers in employment. Extending working lives could boost GDP per capita by 19% in 2050 on average in OECD countries if employment rates of older workers everywhere caught up with the best-performing

countries like Iceland and New Zealand. This would not only be good for societies and governments – in terms of generating additional income and reducing pension spending – but also for individuals, not least since many older workers want to remain active and continue to work while they are in good health.

What is the multigenerational workforce?

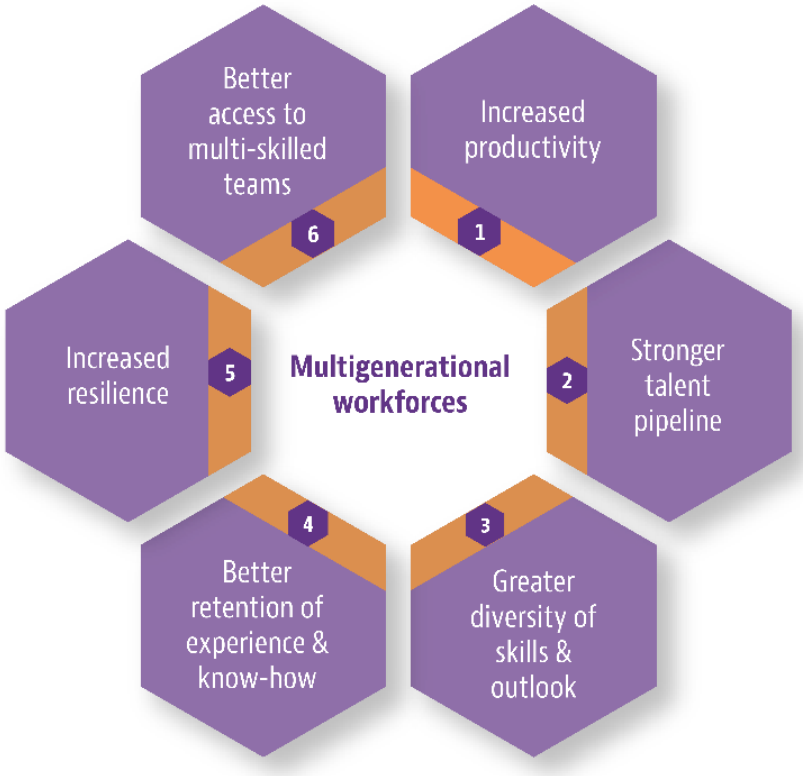
The multigenerational workforce brings together a greater mix of workers at all ages than in the past when workplaces typically consisted of larger numbers of younger workers and relatively few older workers. It includes people with a diverse range of perspectives depending on their life stage and their different experiences of education, work, technology, family life, health, coping with setbacks and making important decisions. Some (but not all) of these may be linked to age. However, despite the widespread belief that each generation has a distinctive and fixed set of needs and motivations concerning work, there is much more evidence that workers of all ages broadly value the same things. Of course, differences between ages do exist. In general, older workers tend to have more chronic health problems, requiring more support to manage symptoms and stay active at work. By contrast, many younger workers have grown up using digital technologies which for older generations might require more effort in learning and adaptation. But even within age groups there are large differences. Tailoring policies so that they are adapted to different individual circumstances and contexts is more effective than designing by age.

The contemporary reliance on generational labels which contrast the needs and motivations of, for example, so-called “Millennials” versus “Baby Boomers” have an undoubted popular appeal, but they can underplay the greater similarities in work needs shared across the generations. Employers who can successfully combine the talents and diverse outlooks of their employees – whatever their age – generally find that their workforce is enriched and more productive as a result.

The business benefits

Optimising the benefits of a multigenerational workforce increases productivity (i.e. raise the value added per worker of the firm). Based on a unique dataset that links employer and employee characteristics, new analysis highlights that a firm that has a 10% higher share of workers aged 50 and over than the average is 1.1% more productive (Chapter 2). These benefits accrue from older workers being more productive than other workers on average as well as productivity-enhancing complementarities between employees of different age e.g. through teams where younger and older employees work together and spillover of knowledge and experience. Building a multigenerational workforce also yields a stronger pipeline of talent, increases resilience and improves workforce continuity, stability and the retention of know-how. Many employers already have a mixed-age workforce, presenting opportunities in terms of a diversity of ideas and knowledge, and skill sets (see Figure 1).

Figure 1. Business Benefits of a Multigenerational Workforce



Nonetheless, the use of generational or age labels continues to be common when designing policies within employing organisations and governments. Instead, a more effective and productive workforce strategy is to set in place inclusive, all-age and life stage policies covering the employment life-course from recruitment, assessment, retention, compensation, to life-long learning, health, wellness and retirement. Longer lives means shifting age-specific features towards more lifecycle- oriented approaches.

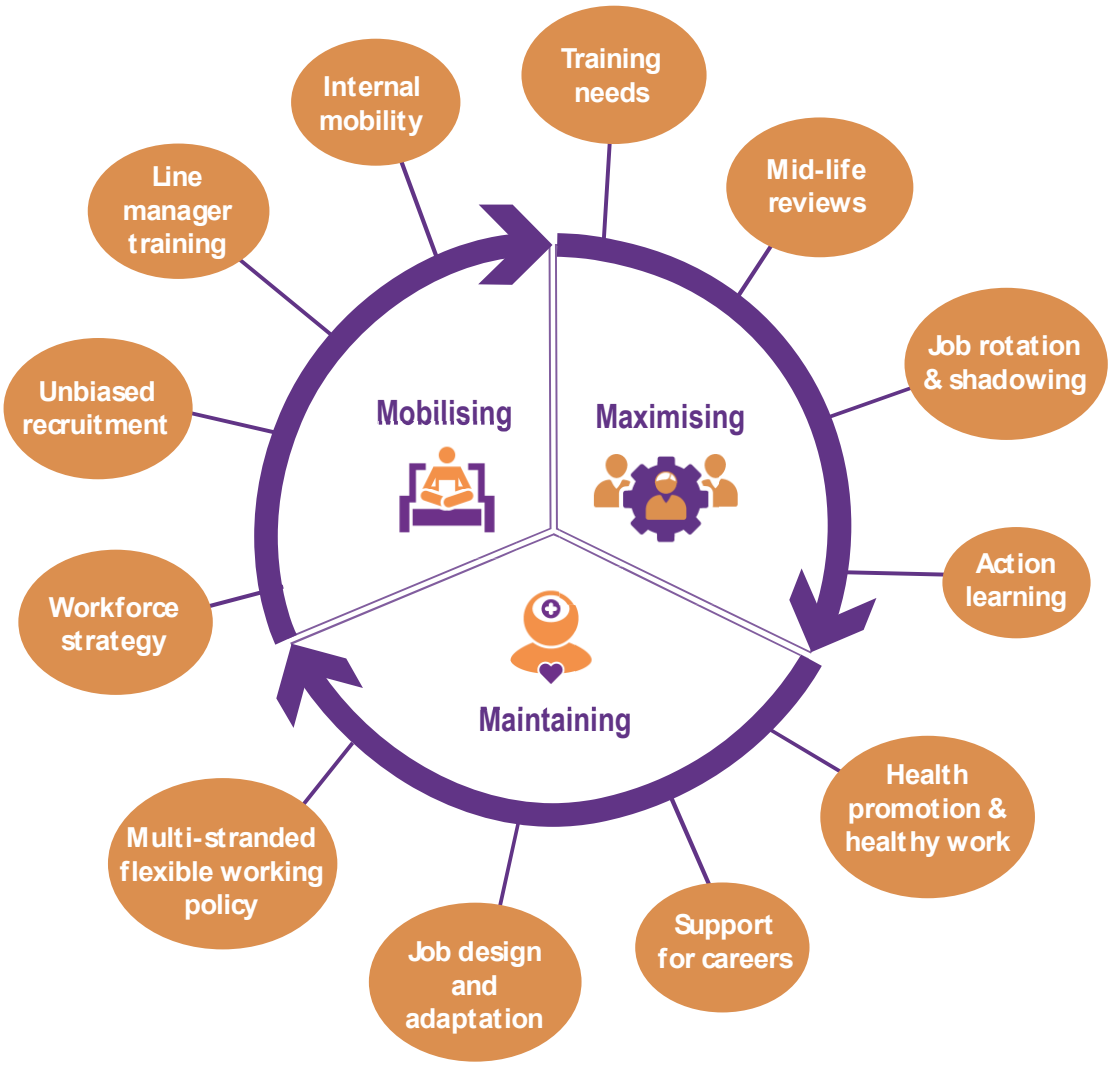
Getting it right

There are three critical domains across which organisations need to act in order to make the most of their multigenerational workforce. Strategies and policies across these three domains are mutually supportive and in combination enable employers to increase productivity, reduce costs of recruitment and absence management, and to benefit from more diverse perspectives that their customer base also recognises. Moreover, employer action in these areas can be reinforced by complementary public policies and effective social dialogue and collective bargaining to better manage a multigenerational workforce and fully utilise its potential to promote firm competitiveness and well-being of workers.

These three domains are:

- recruitment and retention strategies (mobilising)
- job quality (maintaining)
- training and development (maximising)

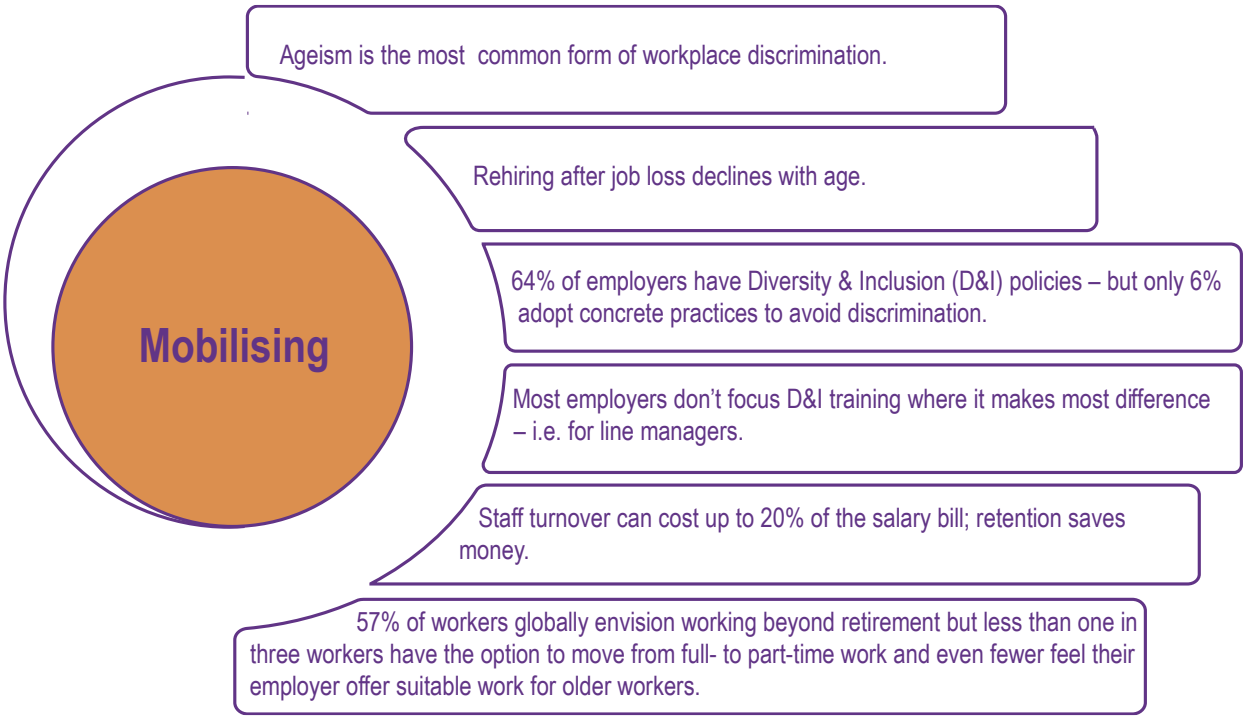
Figure 2. Making the most of the multigenerational workforce



An illustration of what this holistic approach looks like in practice is given in Figure 2 and more information is provided in the following sections for each domain on why employers should take action (incentives), what benefits this reaps (opportunities) and the policies that are proving effective to achieve this (employment practices).

Mobilising a multigenerational workforce

Key facts: why action is needed?



What are the opportunities?

Evidence shows that companies expend disproportionate effort and incur additional recruitment costs if they do not mobilise the multigenerational workforce. Thanks to past reforms workers aged 55-64 years are more active in the labour market than ever before. Nevertheless, in recruitment, many companies prioritise young people and new skills over older ones with more experience. The focus on recruiting younger people in the context of population ageing can be expensive. The reasons given for doing this are often based on well-entrenched negative attitudes towards older workers which remain a prime barrier to hiring. Given older workers face greater health risks from the pandemic, this may further damage their hiring prospects. However, companies that see beyond these stereotypes are able to access a greater talent pool despite shrinking cohorts of younger people.

In fact, discrimination and negative employer attitudes towards different age groups are obstacles to long and productive working lives. Older workers are often perceived as experienced and wise but also as less adaptive and having outdated skills. Younger workers are deemed dynamic and high skilled but are believed to lack leadership ability. Age-related stereotypes can thus be positive or negative. However, the negative stereotypes have much larger effects on company behaviour.

Long-standing employees carry valuable company-specific know-how, skills and experience which support the integration of new hires and ensure that their "tacit" knowledge of the business, its procedures and customers can be passed on to less experienced colleagues. Older workers are far less likely to quit and move to other companies than their younger counterparts, providing stability and continuity. And while long careers in the same company can carry the risk that inefficient routines get deeply entrenched and work methodologies become outdated, effective employer policies to foster a life-long-learning culture can counter this risk.

What are good employment practices?

Diversity and inclusion (D&I) strategies have gained importance as a means to recruit and retain suitable workers from a range of backgrounds. They are also a way to overcome ageism by defining an inclusive corporate culture. Some employers now link their workforce diversity to measures of company performance. These strategies send positive signals about organisational culture and values both to the current workforce and potential recruits. An increasing number of D&I strategies now include age as an explicit element, a promising development in recent years. But creating a D&I strategy alone is not sufficient for ensuring an inclusive workplace that supports a multigenerational workforce. Other concrete policies are needed alongside, such as unbiased recruiting processes, phased retirement programmes and lifelong-learning opportunities.

Eliminating age discrimination in recruitment and hiring is an important area for corporate policy and practice. It is difficult to completely remove unconscious bias from decision making, but several measures can be implemented to de-bias the various stages of the recruitment process. The starting point is to age proof the wording and imagery used in advertisements and job descriptions which can influence who applies for a position. Recruitment software that effectively ignores advertisements for buzzwords related to age and other personal characteristics can help diversify the candidate pool by systematically removing risk of bias which may influence both shortlisting and selection. Using application forms, rather than a traditional CV, for instance can also remove triggers in the first place – for example by asking for relevant experience against competencies rather than chronologically.

Strategic workforce planning involves evaluating the skill set of the current workforce, identifying future skill needs to avoid shortages, and the monitoring and planning of internal promotions and cross-functional job moves. This can allow an employer to benefit from first-mover advantages in areas of the labour market where the supply of high-quality candidates may be constrained and help recruit in terms of talent rather than age.

Many employers invest in **diversity training programmes** to tackle conscious and unconscious biases. However, evidence shows that in relation to age, promoting awareness of stereotypical views and biases is not sufficient, by itself, to eradicate bias. Instead, **appointing a manager or committee** with responsibility for change and accountability, whether in relation to gender, race or age diversity, is more effective than diversity training on its own. Engaging line managers can be particularly effective as they have a pivotal role for creating an age-inclusive work environment.

Strategies that effectively promote **employee engagement and buy-in** go a long way in developing an age-inclusive culture. Employee Resource Groups (ERGs) involve groups of employees in promoting accountability, engagement and increased contact among the diverse groups and are a relatively inexpensive way to promote employee engagement and participation. Similarly, providing social opportunities to bring employees together in a non-work setting as well as consultations with worker's representatives can build understanding and more inclusive views.

Internal mobility with workers moving between roles to fill vacancies fosters development and transfer of skills within companies. Structured processes to move people between positions can improve succession planning, better match candidates and jobs, and increase retention rates. Some employers put together temporary cross-functional project teams to address specific projects. These can be a useful way of ensuring a mix of employees with different professional or technical backgrounds, from a range of demographic profiles, are brought together to learn from each other, including across generations, while solving specific problems.

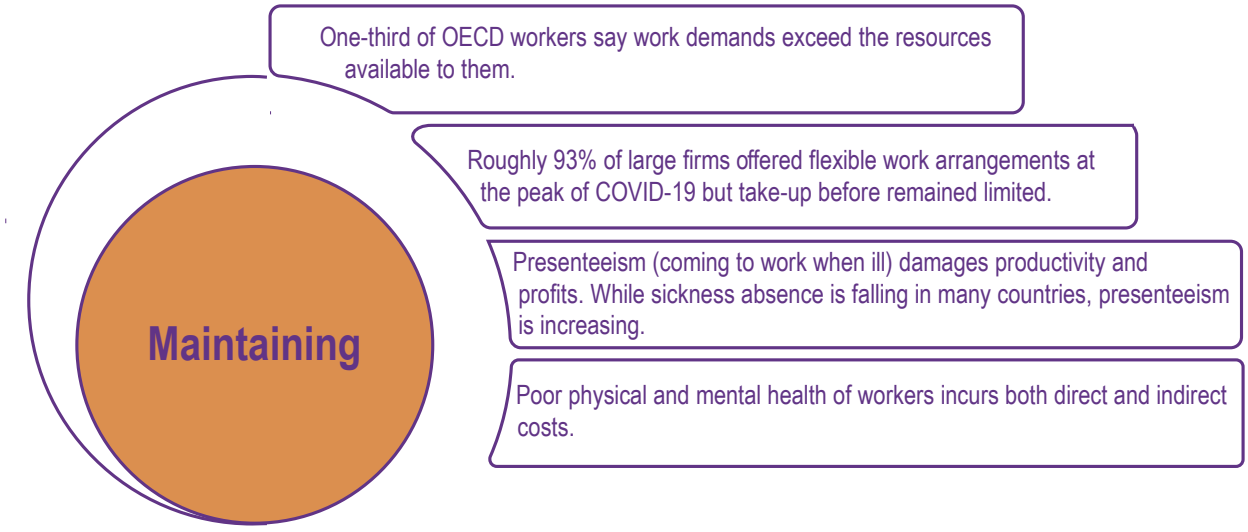
Formal **returner or re-entry programmes** involve hiring returnees on a systematic basis and offering in-house support to bridge any skills gaps that develop during a career break. This can involve induction sessions, mentoring and coaching, role-specific training and feedback and review sessions.

Many employers adopt a life stage approach to career planning as an effective means to retain workers and offer **Midlife Careers Reviews**. This identifies employees' potential next career steps as part of annual employer-employee conversations on individual development, including lifelong learning and skill building goals. From mid-career onwards, workers are often keen to plan for their eventual retirement requiring a flexible response from employers. However, it is not only older workers who need this support. Growing concerns about the financial well-being of employees throughout the lifecycle has prompted more employers to offer such support to workers of all ages and in all life stages.

A way to retain older workers are **phased retirement programmes**. These comprise a broad range of informal practices and formal workplace policies to allow employees approaching the statutory pension age to phase into retirement by working for their employers in a different capacity, instead of switching abruptly from full-time work to full-time retirement. Providing such opportunities for older people can help employers retain valuable institutional knowledge while responding to employees' preferences.

Maintaining a multigenerational workforce

Key facts: why action is needed?



What are the opportunities?

Making work attractive to the multigenerational workforce ensures that there is an adequate supply of skilled, healthy and motivated workers. Evidence suggests that factors that make work fulfilling are similar across age groups and generations, with age playing a minimal role. Older workers look for employment that is personally meaningful, flexible, intellectually stimulating, sociable, age-inclusive and which offers the adjustments needed to take account of health conditions and disabilities. They are more likely to stay in work and with the same employer if they think that their work matters, their employer supports them and their needs are taken seriously. They value opportunities for learning, mentoring others and career progression. These factors support a positive work-life balance and strengthen connections to employers, colleagues and customers. Fulfilling work helps to promote self-esteem, confidence, engagement and performance. The principles for managing older workers effectively are the same as for staff of any age. To reap these benefits, employers must devise working conditions that support workers to retain their physical and mental health, motivation and productive capacity at all ages.

What are good employment practices?

Offering **flexible working options** delivers benefits to employers. Employees are less prone to burnout, and it enables workers at different life stages to manage their work-life balance and better respond to the needs of their household as well as their employer. These practices range from flexitime options (such as starting and finishing work at different times) to working "compressed" weeks (working an extra hour each day to get Friday afternoon off) or using "time accounts" to spread working hours across weeks or months. Flexible working also includes working from home or teleworking.

There are external drivers to implementing a flexible work policy: a growing proportion of customers also want businesses to be flexible and agile in the way they provide access to products and services. Organisations which can "flex" to provide 24/7 services or use both face-to-face and online access to products are most likely to achieve a competitive advantage over their rivals.

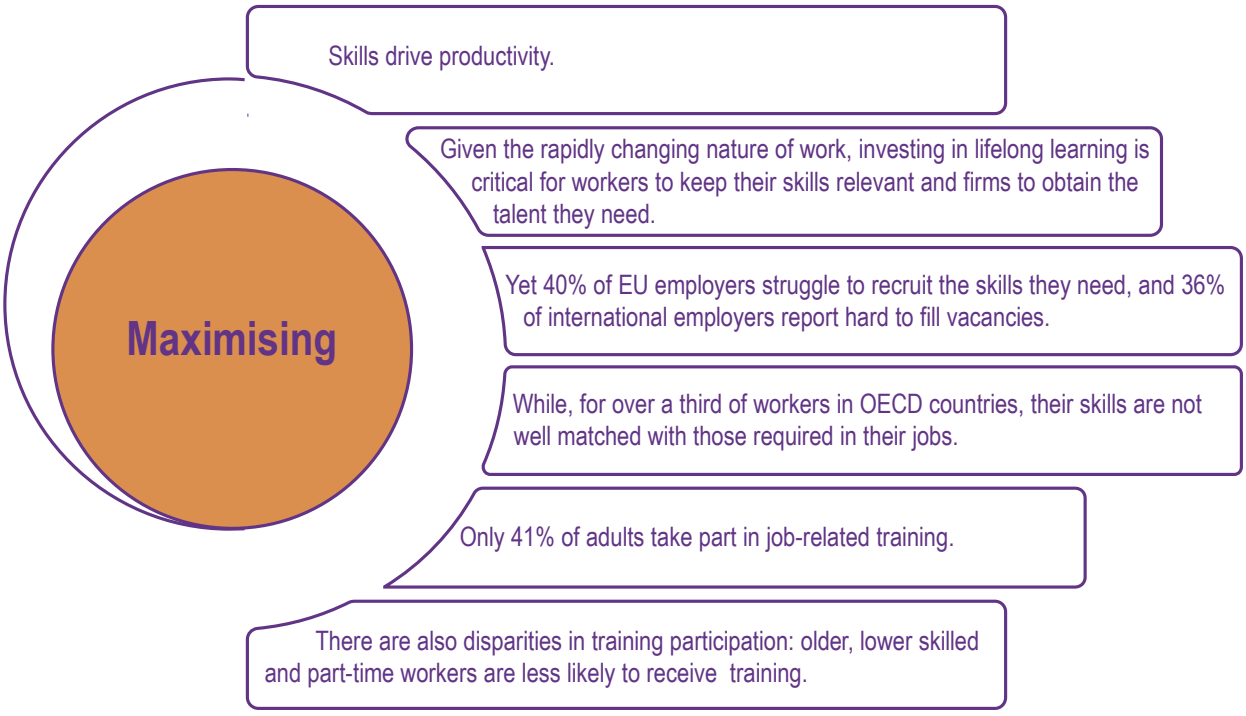
Evidence suggests that to implement a flexible working policy effectively, many employers are keen to avoid too many highly individualised arrangements. Therefore, providing a limited "menu" of flexibilities which suit different groups of employees with different needs may be preferable from a business perspective. At the same time flexible working arrangements also need to be carefully designed and promoted to ensure take-up and maximise worker well-being and productivity. The COVID-19 pandemic has accelerated the shift by many companies towards offering more flexible work arrangements. However, to be effective, regulations needs to be accompanied by support from social partners and ensure that workers at all ages need to have the digital tools and skills to work from home.

Similarly, **supporting the health and well-being** of workers is key determinant of workplace productivity. There is overwhelming evidence suggesting that poor-quality work, a stressful job, exposure to hazards, strain or physical exertion can make pre-existing conditions worse. Employers therefore need to support all employees regardless of age or life stage if they have long-term or chronic conditions which may limit their ability to attend or perform effectively at work. High quality employers recognise the concept of "holistic" well-being, and are concerned for the physical, mental, and social lives of their workers. They create work environments where employees feel seen, heard, appreciated and that their work has meaning. For example, a growing number of companies are expanding their well-being programs to include employee financial security, such as access to debt management tools or student loan counselling. Financial well-being in particular is an important well-being pillar as it is hard to engage employee's wider health needs if they are struggling with managing a budget or large household debts.

Some employers have thought carefully about how they can make adjustments to work which balance job quality, safety, well-being and flexibility. Best practice includes a systematic approach to the analysis of risk exposure; **early intervention** for those with reduced work ability; making adjustments to job-design as well as supporting employees' ability to manage change and work and non-work demands (e.g. adjusting working hours and making time to see a clinician). In recognition of the large prevalence of mental health problems e.g. depression and anxiety at the workplace and their associated costs, some employers have also illustrated that it is possible to put the psychological health of employees on the same footing as their physical health. Effective approaches include tackling stigma at work, encouraging disclosure of mental health problems among employees as well as practical tools for employees to monitor their stress levels and face-to-face counselling. Finally, in activating policies to mobilise the multigenerational workforce, the **role of line managers** should not be overlooked. Line managers play a crucial role, for example, in supporting employees with common mental health problems to remain in or return to work but need skills development and training to do this effectively.

Maximising a multigenerational workforce

Key facts: why action is needed?



What are the opportunities?

Firm performance is affected where workers do not have the right skills and population ageing limits options for recruiting the needed profiles. Focusing on a skilled talent pool is the optimal way for organisations to maintain sustainability and evidence demonstrates that the most successful organisations spend time on developing their employees. Lifelong learning and training improve overall organisational performance in four key dimensions: a skilled workforce is better able to adapt to changing work environments; higher productivity and efficiency by eliminating inefficient work practices, which leads to improved competitive advantage; better performance on tasks enabling innovation to emerge; and greater motivation leading to lower staff turnover costs. Training approaches can also support skills, experience and knowledge-transfer between workers of different ages and life stages, building resilience for businesses.

An all-age training policy ensures the skill needs of all workers are taken into account. In determining who needs training, particular attention should be paid to the needs of lower skilled workers, older workers and those on part-time or temporary contracts. For older workers, the greater elapsed time since leaving full-time education can be a factor in making decisions on training needs and the choice of training/learning methods which are adopted. For workers of all ages, it is important that training builds on existing skills and has a direct link with enhancing career prospects and offering the employer a rich pool of skills to draw upon as the needs of the business change. It is also important that training is tailored to the learning needs and style of each person. Moreover, active involvement of representatives from unions and employer groups in the planning, delivering and monitoring of adult-learning systems can improve the provision and take-up of skills and training programmes.

What are good employment practices?

There are various tools that enable organisations to understand employees' current competence, capability and aspirations. From the life-course perspective, **regularly reviewing skills and work tasks, as well as capability for current and future roles**, enables the organisation to motivate and maximise the deployment of staff in different contexts. Conducting a training needs analysis (TNA) can underpin effective implementation of an organisation's training strategy. The TNA identifies who needs to be trained, in which skills, and the best approach to meeting this need. This comprehensive approach comprises a job-task element, organisational needs analysis and a person analysis. More recently, some employers are using Artificial Intelligence and machine learning to make assessments of an employee's skills and predict future skills gaps. **Midlife career reviews** can provide the person-focused element, and map competency, capability and in-company ambitions. Similarly, personal development plans and career conversations can surface issues around the match between job needs, individual capabilities and longer-term ambitions for work.

Some training practices aim to improve workers' understanding of tasks performed across the organisation through delivering **experiential learning opportunities**. This leads to increased understanding of the contribution of various roles to the end product or service. On top of that, these practices transmit knowledge from younger generations to older generations and vice versa. Practices that organisations use to do this include job rotation – the lateral transfer of workers between workstations and tasks, where workers are obliged to use different skills and responsibilities, and job shadowing – where an early career worker spends time understanding the work performed by a more tenured worker.

Other practices mobilise **individual workers of different generations to provide learning and development to each other**. Practices that employers use within this domain include mentoring (informal, long-term and concerned with career development and progression of the individual), coaching (formal and centred on specific skills and job performance, and addressing individual and organisational needs), and reverse mentoring (revolves around the transfer of knowledge and competences from novice employees to more senior ones).

A final set of practices are based on delivering **group learning**, bringing the multigenerational workforce together within training opportunities, providing mechanisms for the transfer of knowledge and skills across generations, increasing understanding as well as skills levels. Examples include **team development** which encompasses team building and team training. Team building may initially focus on the interpersonal relationships and the social interactions of a team, whereas team training can involve the setting of goals, interpersonal relationship management, role clarification and problem-solving as learning objectives. Another option is action learning which originated as a development approach for managers and leaders – although its use has spread to other staff within organisations. This approach can bring together staff from different departments to work in a solution-focused way to solve organisational problems.

As demonstrated in this report, the real benefit of age diversity comes from the spill-over effect of the mix of ages and life stages within the workforce, collaborating, complementing and learning from each other. Yet, current human resource systems related to performance often incentivise and signal individual contributions only. The current alignment of systems are falling short in two ways: i) they do not capture the collective impact and productivity of an age diverse workforce; and ii) they may even stifle productivity by discouraging collaboration and collective impact, while incentivising internal competition. **Some employers are testing new, experimental approaches to performance systems that better capture the collective impact of an age diversity and inclusive workforce.**

Overall, the evidence suggests that employers who respond positively to the changing needs of employees during their lifecycle and career stages improve their success in attracting, motivating and retaining workers. These workers will in turn exert greater effort on behalf of their company and play a full part in making it efficient and productive. While the ways that employers use to better understand and respond to

changing employee needs will differ between countries and sectors, there are some common principles underpinning them that are likely to have wide applicability to employees of all ages and in all occupations. Furthermore, successful programmes are often co-ordinated within the social partnership framework, usually involving government, employers and unions. The checklist below provides key areas of action and outlines steps employers can take for a more diverse and inclusive workplace.

Check-list for global employers

About your workforce		
What proportion of your workforce are…	Over 50?	Under 30?
What were these proportions 5 years ago?	Over 50?	Under 30?
What is your annual turnover rate for…	Over 50?	Under 30?
How many days lost to sickness (per employee) each year	Over 50?	Under 30?
How many days training (per employee) each year	Over 50?	Under 30?
Multigenerational practices		
Mobilise		
Written D&I strategy that includes age and which the Board reviews	Y/N	Y/N
Clear age friendly recruitment and hiring practices which we evaluate regularly	Y/N	Y/N
Workforce planning practices which allow us to monitor outcomes for older workers	Y/N	Y/N
Succession planning practices which remain open to older workers	Y/N	Y/N
Training opportunities which allow equal access for older workers	Y/N	Y/N
Employee engagement data which allows analysis by age group	Y/N	Y/N
An internal vacancy system which offers open access to older workers and which can demonstrate fairness	Y/N	Y/N
A returner or re-entry programme	Y/N	Y/N
Mid-life career reviews	Y/N	Y/N
Phased or partial retirement scheme	Y/N	Y/N
Maintain		
Flexible working options available to all and regularly monitored	Y/N	Y/N
An active workplace health strategy (with Board-level support) which supports physical and mental health for all and is regularly monitored	Y/N	Y/N
Training for line managers in age management, D&I and inclusiveness	Y/N	Y/N
Maximise		
Regular skill and development reviews for workers	Y/N	Y/N
Open experiential learning opportunities for all workers	Y/N	Y/N
Mentoring and peer learning scheme	Y/N	Y/N
Cross-functional teams use to promote diversity and knowledge sharing	Y/N	Y/N
Aligning performance management systems to incentivise and assess collective impact of workforce in addition to individual contributions	Y/N	Y/N
Group learning or team training opportunities for all workers	Y/N	Y/N

1 Key trends: The future workforce is more age diverse, and offers large potential

The COVID-19 pandemic and megatrends in the global economy are rapidly shaping the way people work today and the future workforce. Rising longevity and falling fertility will considerably reduce the population share at traditional working ages but will also allow individuals to work and contribute to society much longer. New technologies are both a challenge and opportunity for a more age diverse workforce. In the new world of work, the ability to build businesses around a multigenerational workforce that recognises the value and contribution of workers of all ages will be crucial for prosperous and resilient companies. This chapter highlights some of the major changes in the world of work and identifies arising challenges and opportunities for business.

Infographic 1.1. Key facts: The future workforce will be more age-diverse, healthier and better educated

Introduction

The workplace is ever evolving – and at a far greater pace today than ever seen before. The long-term trends of population ageing and technological advances have been accelerating in recent years contributing to skills deficits and shortages for many firms, and changing the nature and type of work and how businesses operate. Amid the COVID-19 pandemic, employers and workers are facing the greatest public health crisis in more than a century that has led to millions of job losses, business closures and widespread economic uncertainty. These developments put business resilience and flexibility at the centre stage for companies world-wide. Developing the right employer tools and practices to use the potential of an all age-inclusive workforce will be a strategic priority for any organisation – large or small – in the light of these transformations.

Population ageing is profoundly changing the workplace

The coming decades will be marked by strong demographic changes. Since 2010, the large baby boomer cohorts have been reaching older ages and successive generations are of smaller size or grow at a slower pace (Figure 1.1, Panel A). By 2050, the share of the population aged 50 and older will increase from 37% in 2020 to 45% on average in the OECD. Similarly, the old-age dependency ratio – a demographic indicator that measures the size of the population aged 65 and over relative to that of people at classic working ages 20-64 – is projected to increase by two-thirds in OECD economies, from 30% in 2020 to 50% in 2050. Many countries with a comparatively young population structure today, like Chile, Korea or the Slovak Republic will face a particularly strong transformation process (Figure 1.1, Panel B).

These demographic trends are working in favour of multigenerational workplaces with a greater mix of workers at all ages rather than a pyramid of much larger numbers of younger workers and relatively few older workers. This diversity of experience, generations and skills mix brings several benefits to the workplace. However, today, large companies with more than 250 employees report that only 6% of their employees are above age 64 according to AARP's 2020 Global Employer Survey. This could rise substantially in the coming decades if companies' recruitment would follow the change in the age composition of the adult population. Workplaces will change their faces and employers will have to adapt their human resources (HR) strategies and workplace practices.

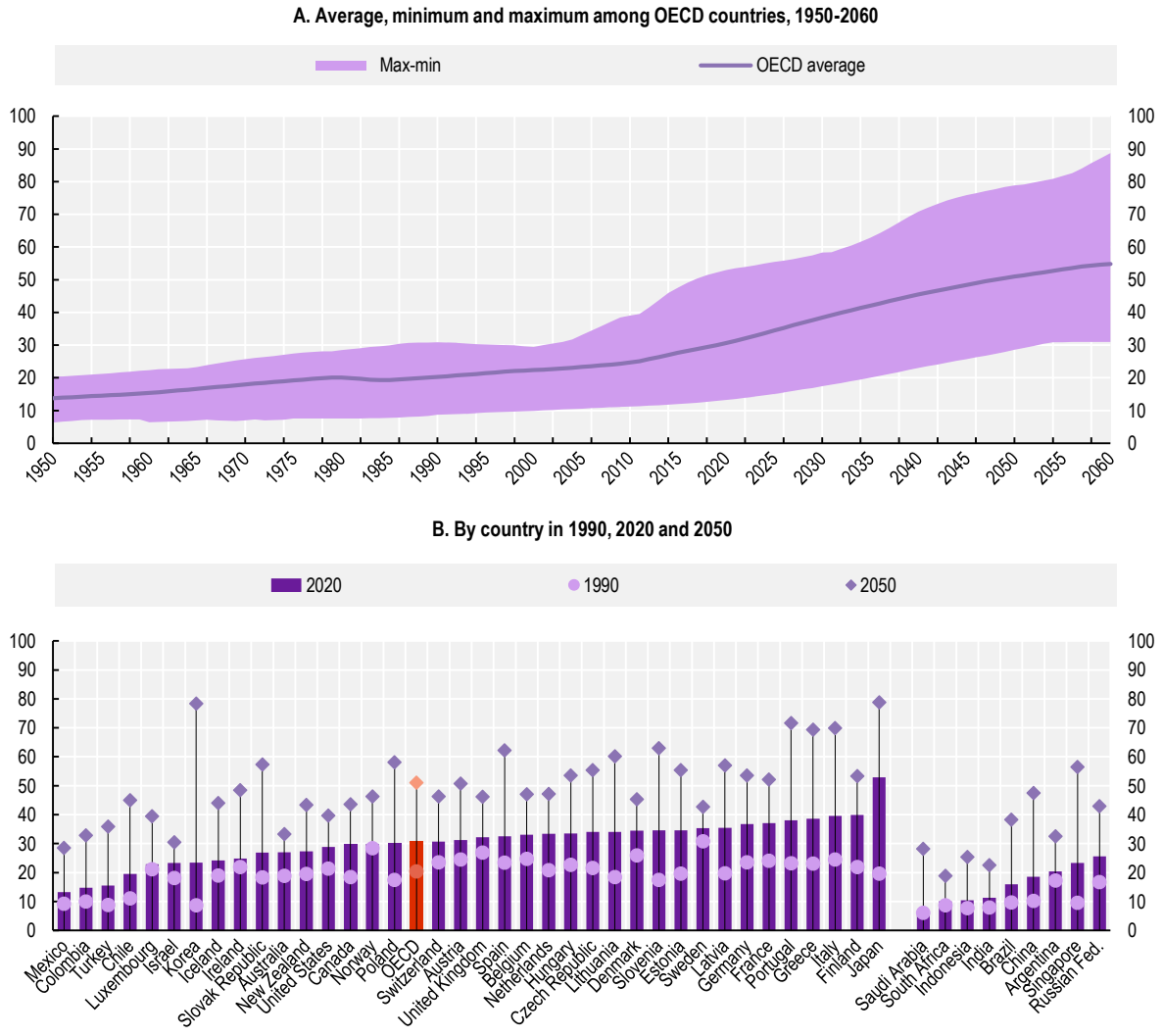
In the medium-term, demographic change may lead to labour shortages reported already in pre-COVID-19 times

The COVID-19 crisis has led to massive turbulence on labour markets across all OECD countries from the second quarter of 2020. Unemployment rates have surged and numbers of workers under short-term compensation schemes have skyrocketed in some countries, with disruptive consequences for economies (OECD, 2020[1]). In the short to medium term, labour markets will need to recover from this sudden shock, which may temporarily put a halt to labour shortages or change sectors in which they appear (OECD, 2020[1]). However, the crisis will not change the long-term dynamics induced by demographic change, which primarily work through the supply-side of the labour market. The pressure to react to population ageing and low fertility rates will hence prevail.

After decades of a slow but steady increase, the share of the population aged 20 to 64 in OECD countries has been declining since 2010 and will continue to do so (Figure 1.2). By 2060, OECD populations will grow by about 200 million persons compared to 2010 of which only less than 10% will be at traditional working ages, 20 to 64. Offsetting this trend by longer working lives would need very big efforts by countries and companies. Population dynamics in Korea, for example, suggest that by 2050 people would have to work a stunning 13 years longer to keep the population share at working age constant (Box 1.1).

Figure 1.1. Population ageing is accelerating

Number of people 65 years and over per 100 people aged 20-64



Note: In Panel A, the shaded area indicates the range between the country with the lowest and the country with the highest value. OECD is an unweighted average.
Source: OECD population projections database (unpublished).

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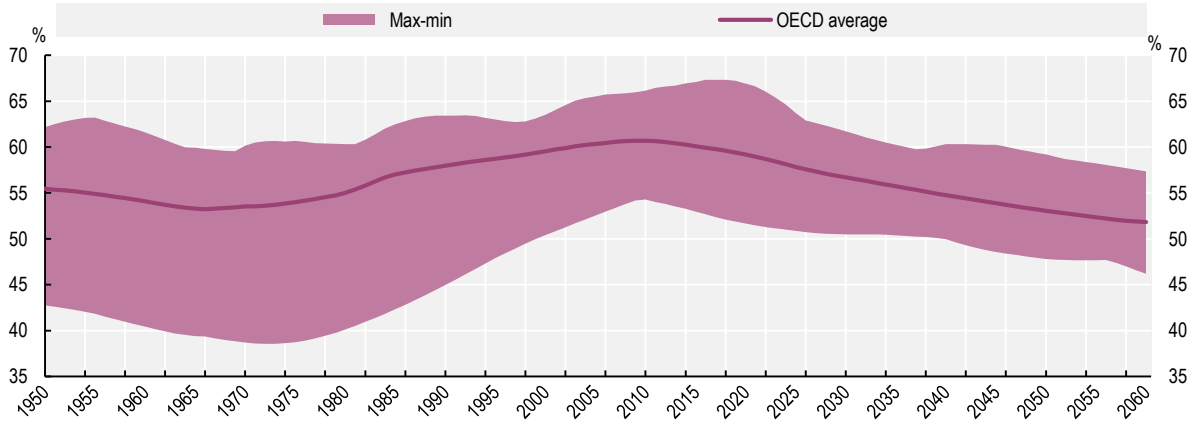
Figure 1.2. Share of people at traditional working ages is declining for the first time in decades

Share of people aged 20-64 in the total population, average, maximum and minimum among OECD countries 1950-2060



Note: The shaded area indicates the range between the country with the lowest and the country with the highest value. OECD is an unweighted average.
Source: OECD population projections database (unpublished).

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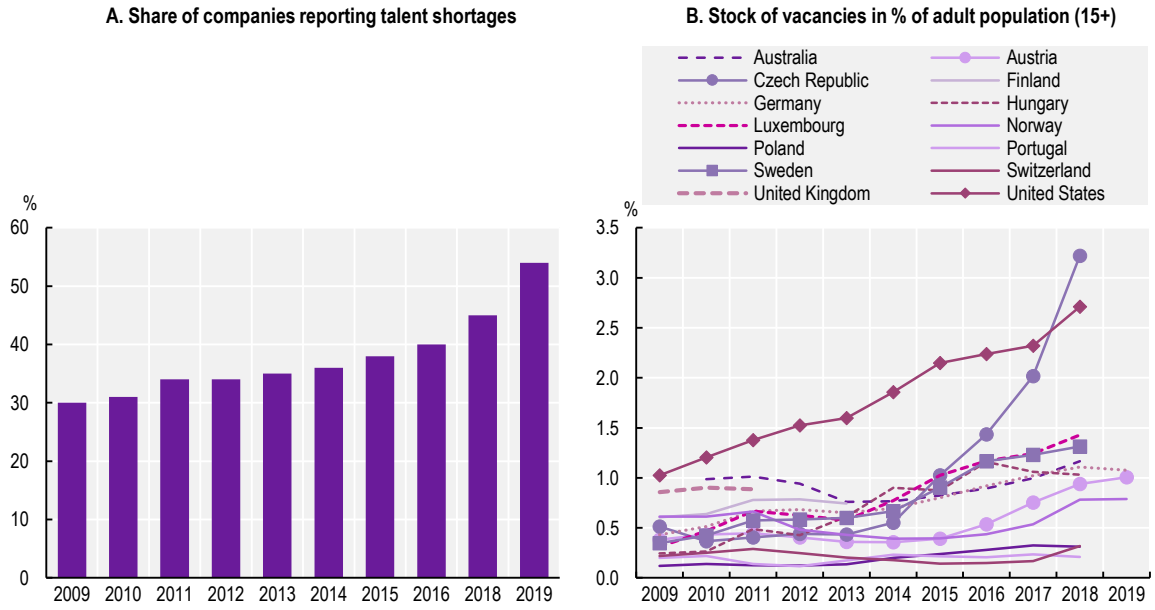
Therefore, the demographic transition may, in the medium to long term, reinforce rising labour shortages that many companies and countries already reported in pre-COVID-19 times (Figure 1.3, Panel A). Employers in Finland, Hungary, Slovenia, Sweden and the United States reported the strongest increase in labour shortages in 2019 (Manpower Group, 2020[2]). Skilled trades e.g. electricians and mechanics, sales and marketing, and technicians were on top of the list of occupation groups that were in under-supply (Manpower Group, 2020[2]). Health care professionals also entered the top ten most in-demand roles reflecting ageing populations and the growing need for health care. In the Czech Republic unfilled vacancies have grown considerably over the last decade based on a strong economy (Figure 1.3, Panel B). Many companies dealt with the labour shortages by hiring workers from abroad, in particular the Ukraine; relying heavily on foreign workers will be difficult to follow for many countries in a globally ageing world. The need for companies to prepare for dramatic and intergenerational transition is becoming increasingly urgent.

Figure 1.3. Labour shortages had been rising before the COVID-19 crisis hit



Note: Panel A is based on about 24 000 employers of six industry sectors in 44 countries across the globe including most OECD countries, Argentina, Brazil, China, India, Peru, Singapore and South Africa.
Source: Manpower Group (2020[2]) (Panel A), OECD dataset: *Registered Unemployed and Job Vacancies* (http://stats.oecd.org//Index.aspx?QueryId=96823) and UN World Population Prospects (2019), medium forecasts (Panel B).

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Box 1.1. Did you know?

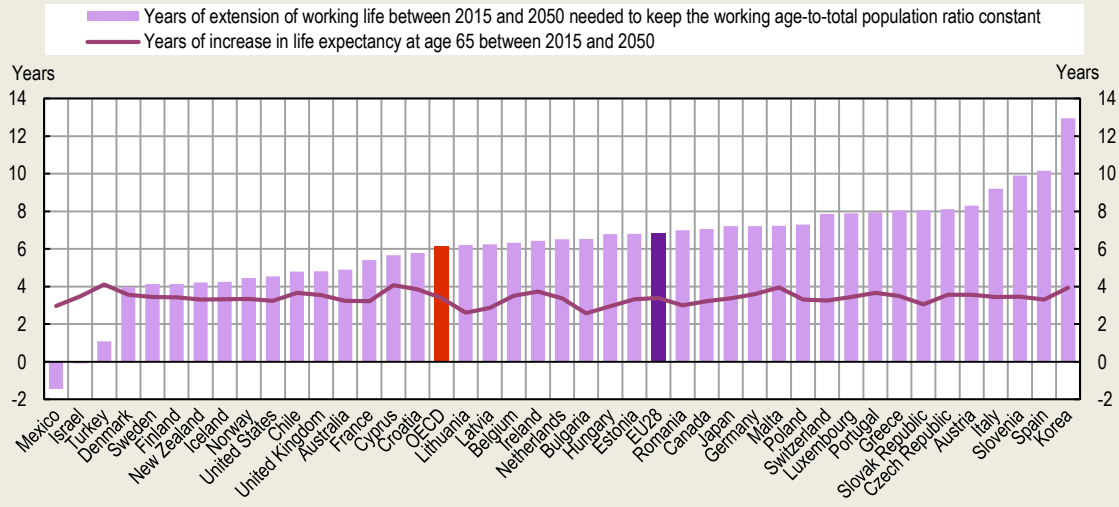
The upper age boundary of working life – using 65 as a reference – will have to increase substantially to prevent the decline in the relative size of the labour force

Today, working age is generally defined as 20-64 (or 15-64). Due to low fertility and as populations are ageing, the share of the population at ages 20-64 will drop while the 65 and older will grow putting pressure on pension systems and living standards. An extension in the definition of the "prime working" years age span by about six years by 2050, from 20-64 to 20-70, would maintain the current population share of people at working age and better capture true work contributions of older adults. This is an average in the OECD; countries like Korea and Spain face much stronger population ageing.

Longer working lives are already happening. Effective labour market exit ages in the OECD have increased by about 2½ years for men and 3 years for women between 2000 and 2019. Women and men in Estonia, the Netherlands, New Zealand and Portugal extended work life even by more than 5 years. Against this background, current definitions of working ages appear increasingly arbitrary and signal antiquated ideas of productive years thereby reinforcing negative stereotypes.

However, the extension of working age by six years over the next three decades would clearly exceed the life expectancy gains over the same period indicating the big challenge to make this large extension of working lives happen. Large efforts through both public and private policies will be needed to allow and incentivise workers to extend work life as long as they can, want and need. Investments in workers' financial and health security across the life course as well as skill-building and lifelong learning will be enable workers resilient up to high ages.

Figure 1.4. The number of additional working years required to stabilise the share of the population at working age



Note: OECD is an unweighted average and excludes Colombia. EU28 is an unweighted average and includes the United Kingdom. Working age is defined as 20-64 years.

Source: OECD calculations based on Boulhol and Geppert (2018[3]), "Population ageing: Pension policies alone will not prevent the decline in the relative size of the labour force", VOX-EU, June.

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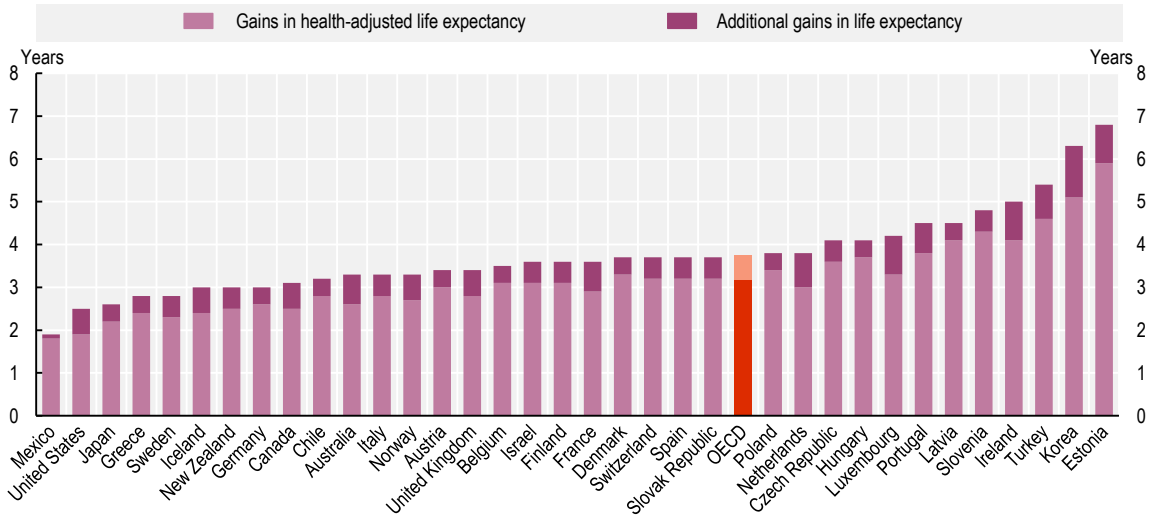
People live a longer, healthier and a more diverse life

Continued economic and social progress over the past decades has raised living standards and life expectancy. A baby born today is expected to live to be almost 81 years old i.e. on average, six years longer than her grandparents. Yet, longer working lives require healthy older people that wish to remain in the labour market. Recent gains in healthy life length suggest that health, on average, is not the main obstacle to working longer. Life expectancy at birth increased by 3.7 years in the 15 years to 2015; of these, 3.2 years are years that will be lived in good health (Figure 1.5). Nevertheless, for decades, people had left the labour market at an even earlier age although those generations constantly benefitted from longer lives than their parents (Figure 1.6). Since the turn of the century, however, labour market participation at older ages is on the way up again, indicating additional potential for firms to alleviate the labour market pressure in the demographic transition.

At the same time, not everyone is able to work longer. Self-reported health differs between socio-economic groups and inequalities in life expectancy between high and low educated people amount to several years. Especially those with physically demanding jobs may neither be able nor willing to work longer in the future (Box 1.2). Preventing poor health before it begins, providing sound working conditions and supporting workers to manage chronic illness is thus key to ensuring productive and long working lives.

Figure 1.5. Extra years of life expectancy are spent largely in good health

Gains in life expectancy at birth, 2000-15



Note: Countries are ranked in ascending order of life expectancy gains. Health-adjusted life expectancy is defined as the number of years that people can expect to live in "full health" by taking into account years lived in less than full health due to disease and/or injury. OECD is an unweighted average and excludes Colombia and Lithuania.
Source: OECD (2017[4]), *Preventing Ageing Unequally*, Figure 2.6, https://doi.org/10.1787/9789264279087-en.

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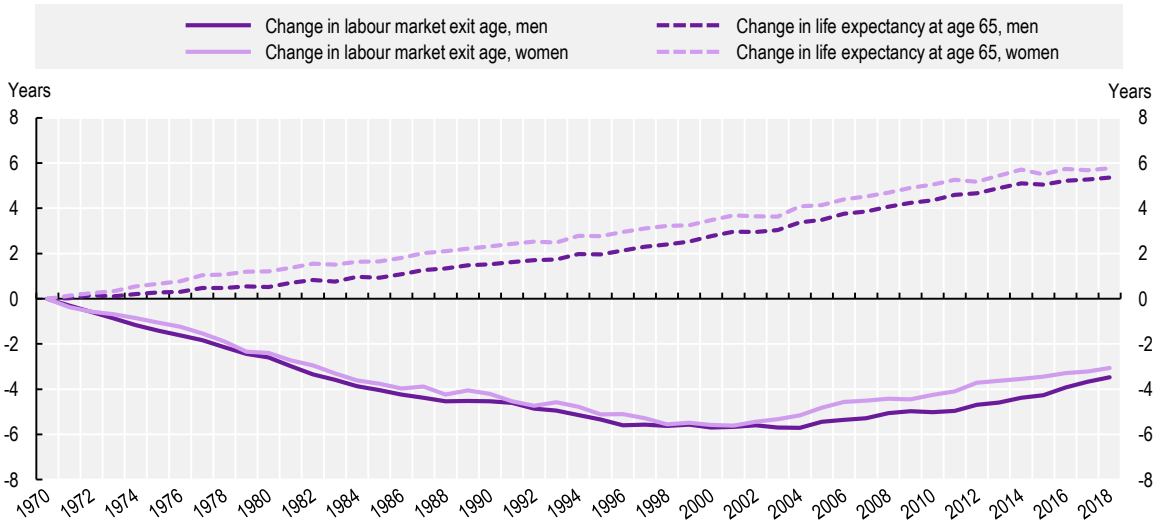
Figure 1.6. Labour market withdrawal increasingly happens later in life

Changes in labour market exit ages and life expectancy at the age of 65 since 1970, OECD average



Source: OECD dataset on *Average effective retirement ages* (https://www.oecd.org/els/emp/average-effective-age-of-retirement.htm) and OECD Dataset *Health Status* (http://stats.oecd.org//Index.aspx?QueryId=96804).

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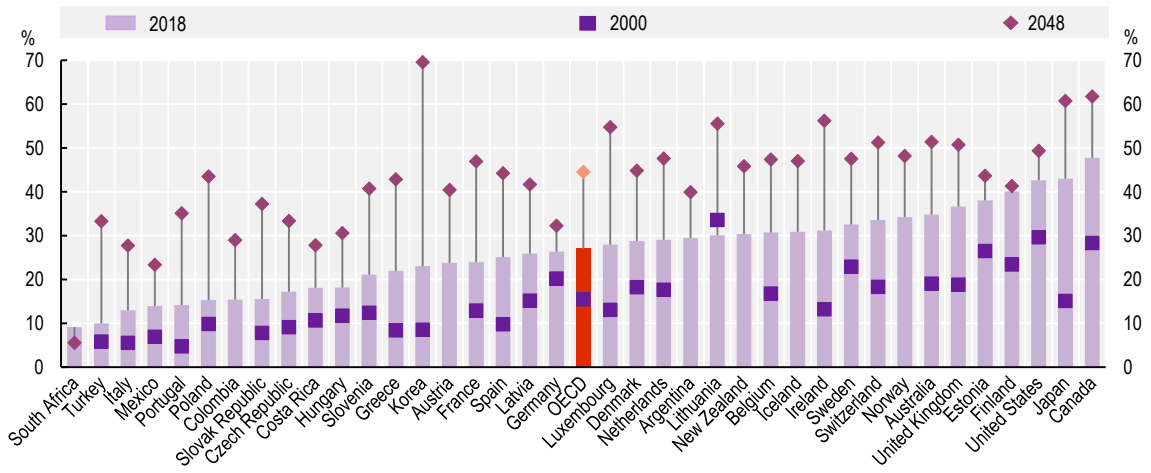
The future workforce is healthier and better educated

These future older workers of all generations will, on average, not only be in better health but will also be better educated than current generations of 50-plus workers. The share of tertiary-educated older workers, so broadly speaking the share of those with a college degree, has already substantially increased over recent decades but will further surge as today's well-educated younger workers age (Figure 1.7). Turning their high formal education into productive skills on the job will be key for their long and continuous employability and prosperous business.

Figure 1.7. Older workers in the future will be better educated than older workers today

Share of population with tertiary education, age group 55-64 (various years)



Note: Data for 2048 corresponds to the share of the population aged 25-34 in 2018 with a tertiary education. Population with tertiary education is defined as those having completed the highest level of education, by age group. This includes both theoretical programmes leading to advanced research or high skill professions such as medicine and more vocational programmes leading to the labour market. The OECD unweighted average excludes Austria, Chile, Iceland, Israel, New Zealand and Norway, for which at least some data points are missing.
Source: OECD Data, Population with tertiary education https://data.oecd.org/eduatt/population-with-tertiary-education.htm (accessed on 23 January 2020).

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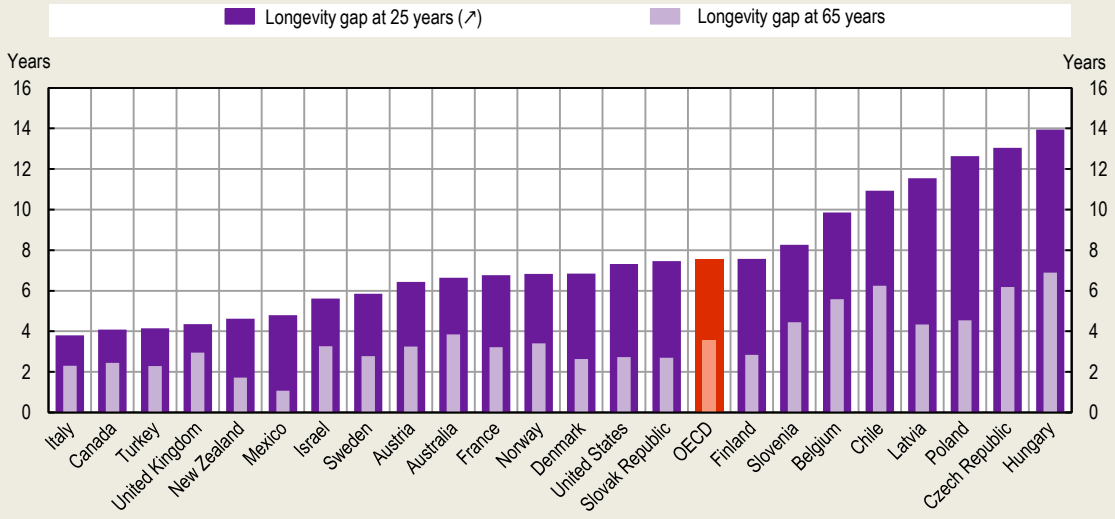
Box 1.2. Working longer might not be for everyone

A large gap in employment rates between people in bad and good health suggests that health is an important limiting factor to participate in the labour market, and more so for the low-educated than for the high-educated individuals (OECD, 2017[4]). Carpenters or tile setters work in physically demanding jobs and might lack the health capacity to work at older ages. Life expectancy that falls several years short of their better-educated peers indicates potential limitations in certain occupations. Inequalities in longevity between socio-economic groups have been reported for many countries, the gaps being particularly large in Central and Eastern European countries; such as a seven-year gap for men at age 65 in Hungary and a three-year gap in the United States (Figure 1.8). Generally, education-related gaps are larger among men than women (Raleigh, 2019[5]).

Figure 1.8. Large life expectancy gaps between low- and high-educated groups

Life expectancy gap between low-educated and high-educated men by age, around 2011



Note: Data was newly collected – although from 2011 – to improve on available data by better accounting for mortality differences across educational groups at older ages. The OECD is an unweighted average of the 23 countries shown.
Source: OECD (2017[4]), *Preventing Ageing Unequally*, https://doi.org/10.1787/9789264279087-en.

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In nearly all OECD countries, employment rates for older workers across education levels have been rising over the last two decades. Geppert et al. (2019[6]) suggest that better health of older people reflected in higher life expectancy belonged to the key drivers of this development. Whether living longer, working longer will be an option for everyone, depends on whether gains in life expectancy will be shared among all socio-economic groups.

The overall trend in life expectancy gaps between socio-economic groups across countries remains unclear. However, for some countries – like the United States (Chetty et al., 2016[7]) – evidence points to an increase in this life expectancy gap over recent decades that may continue in the future. Life expectancy differences between the income-richest and income-poorest regions in Central and Eastern European countries more than doubled for men between 1999 and 2008, from 1.8 to 4.2 years, while remaining stable overall in the EU (Richardson et al., 2013[8]). In England, the life expectancy gap between the most and least deprived decile of areas increased from 9.0 (6.9) years for men (women) in 2011-13 to 9.3 (7.4) years in 2014-16 despite several government initiatives to reduce them (Raleigh, 2019[5]).

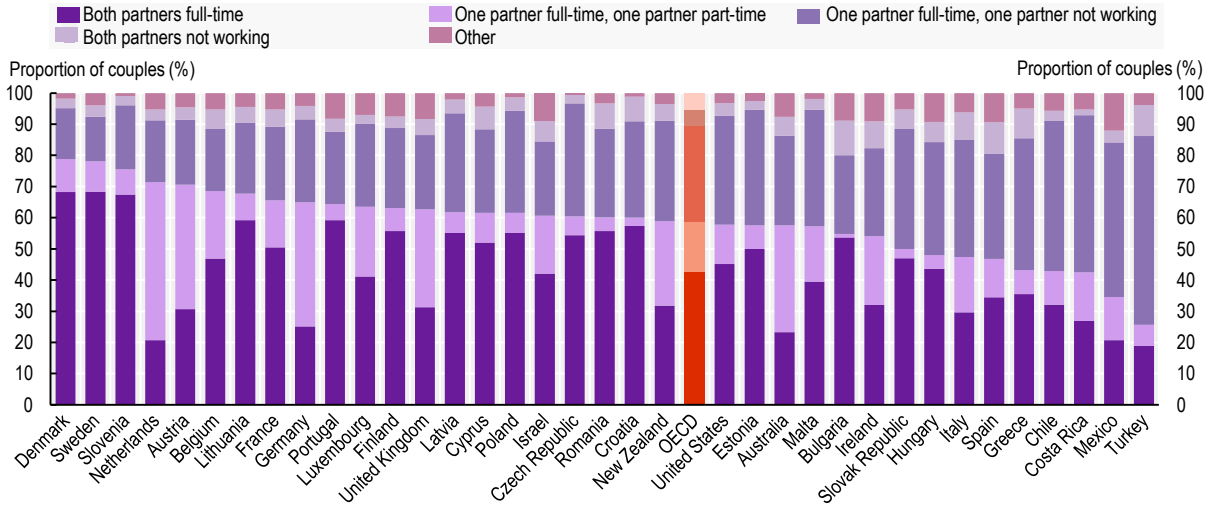
Changing work life patterns

Longevity has crucial implications for all ages and contributes to new patterns of how people spend their time throughout their life cycle. In general, people go to school longer, marry later and less frequently, have children at later ages and expand more often their working lives beyond the statutory or mandatory retirement ages, be it in full-time or in part-time (OECD Society at a Glance, various editions[9]). Subsequent periods are often designated to family and volunteer work, so longer lives also mean a longer period in which people contribute to society even if by formal definition they are economically inactive.

The traditional single-breadwinner model in which the one spouse goes to work while the other stays at home and takes care of children and other family members is becoming less common. Even among couples with children, only 30% have a single breadwinner (Figure 1.9). That is an average of 30 OECD countries; in Denmark or Sweden it is even only every sixth to seventh couple. This has direct implications for career paths, which are becoming more fluid (Figure 1.10). Nowadays, women return to work more often and more quickly after giving birth while men are more likely to pause their job to care for their children or older, frailer family members, though women still take the majority of family care responsibilities (OECD, 2017[4]). Changing life patterns will thus require flexibility from employers and support from governments. In particular, shifting age-specific features towards more lifetime-oriented approaches such as life-long learning and more flexible work opportunities for better work-life balance will be crucial to help workers manage these transitions.

Figure 1.9. Only a minority of couples with children has a single breadwinner

Distribution of employment patterns in couples with at least one child aged 0-14, 2014



Note: The OECD is the unweighted average of the 30 member countries shown. Data refer to 2012 for Denmark, Finland and Sweden and to 2013 for Chile, Germany and Turkey. For detailed notes, see http://www.oecd.org/els/family/LMF-2-2-Distribution-working-hours-couple-households.pdf.

Source: *OECD Family Database*, indicator LMF2.2, www.oecd.org/els/family/database.htm (accessed 3 November 2020).

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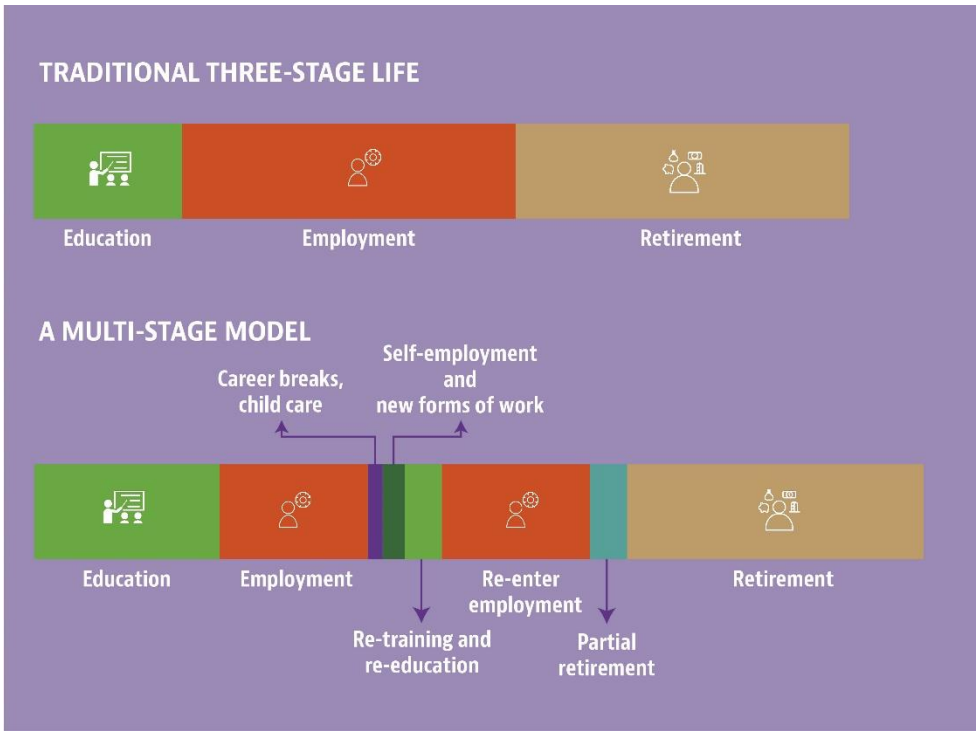
Figure 1.10. Career paths are becoming more fluid



Source: OECD adaptation from Mercer (2019[10]), *Next Stage: Are you age-ready?*, https://www.mercer.com/our-thinking/next-stage-are-you-age-ready.html.

New technologies shape the future of work

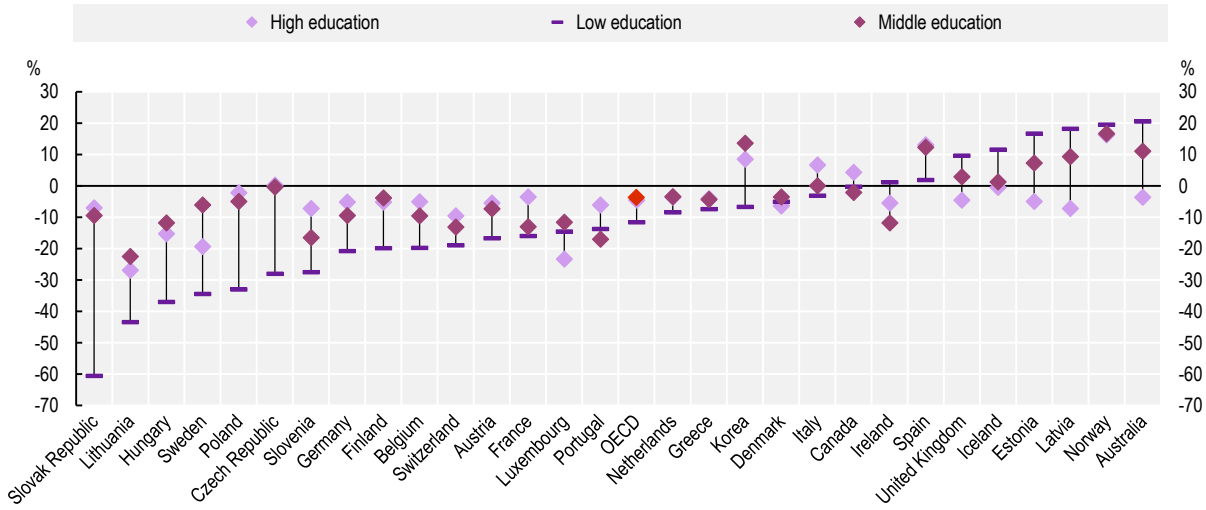
Changes in work-life patterns are further accelerated by globalisation and technological change. In particular, they are changing the nature of work and the skill composition of the labour force. Over the past decades, a process of job polarisation has reduced the share of middle-skilled jobs relative to the share of workers in high- and low-skilled occupations and this process is likely to intensify in the future (OECD, 2019[11]). Over the next 15-20 years, 14% of existing jobs could disappear due to automation and another 32% are likely to change radically as individual tasks are automated, so almost every second job could be affected (OECD, 2019[11]).

While workers feel much anxiety about the potential risk of job loss and skills becoming obsolete, employers face the challenge of keeping up with the pace of technological and organisational change to stay competitive. However, the new technologies are also game-changers, amplifying the capacity to promote higher productivity growth, better services and improved well-being.

Working habits have changed too. Temporary work and other diverse forms of work have become more common in many countries and workers switch jobs more frequently. Job tenure, a direct indicator of job stability, measuring the amount of time spent in one's current job, has decreased in the majority of OECD countries, in particular among less educated workers. Between 2006 and 2017, job tenure declined by 4% among medium to high-educated workers and 12% among the low-educated (Figure 1.11). More frequent changes of jobs over careers may rise as people start to fully embrace more flexible ways of working (e.g. teleworking) and forms of work (e.g. gig work). This raises challenges for traditional models of adult learning provision that depend heavily on employer-provided training to keep the skills of workers up to date. Training participation of workers in temporary jobs or other forms of employment tend to be lower than for full-time employees in permanent jobs (see Chapter 5 for more discussion).

Figure 1.11. Workers are changing jobs more frequently

Percentage change in years of job tenure between 2006 and 2017, adjusted for demographic structure



Note: The OECD is the unweighted average of the 30 countries shown. Data are adjusted to control for the composition of the labour force by age, and gender. High education workers have completed a tertiary education. Middle education workers have achieved an upper secondary education and possibly some additional education but less than a bachelor degree. Workers with low education have not completed upper secondary education. Data for Australia, Germany and the United States refer to 2016.

Source: OECD (2019[11]), *OECD Employment Outlook 2019: The Future of Work*, Annex Figure 3.A.1, https://doi.org/10.1787/9ee00155-en.

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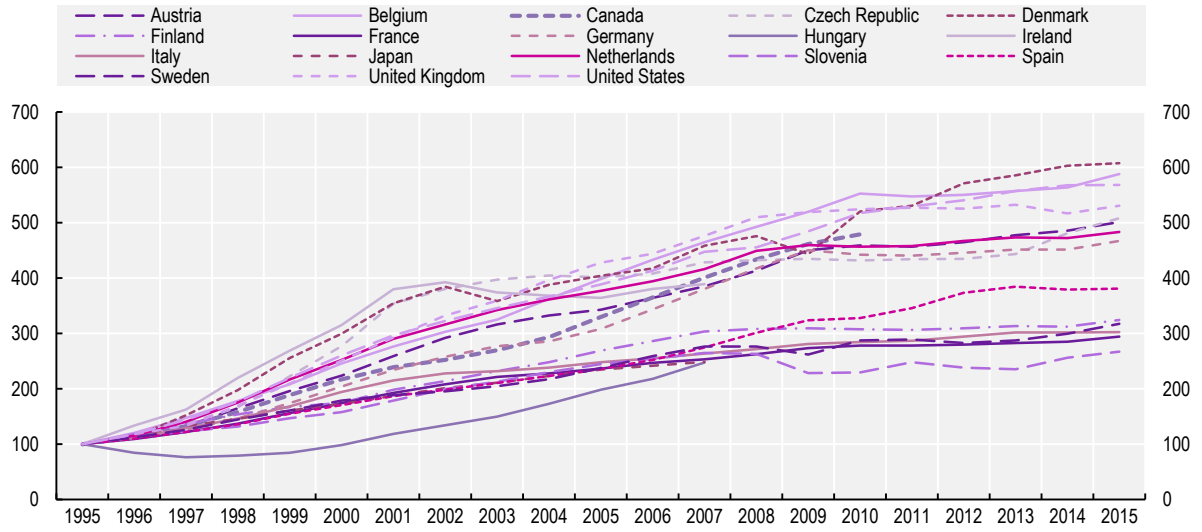
The growth in information and communication technologies (ICT) used in the workplace provides a clear indication of how quickly new technologies permeate the workplace. Over the last two decades, the level of ICT capital services per hour worked more than quadrupled in the majority of countries analysed (Figure 1.12).[1] The COVID-19 crisis has been an accelerator in the adaption of technologies that allow collaboration between co-workers while complying with the governmental rules of physical distancing to contain the pandemic. Many employers have expanded their remote-working technologies and the number of teleworkers surged during the COVID-19 pandemic, equalling up to 60% as recorded in New Zealand in mid-April 2020 (OECD, 2020[1]). Keeping the skills of the workforce up-to-date will be key for companies' success in the ongoing technological transformation. Especially for workers, whose main education period dates back several decades, it will be of high importance to invest in workers and systems that help constantly adapt to the quickly changing work environment.

Figure 1.12. The rapid spread of information and communication technologies in the workplace

ICT capital services per hour worked in 1995 to 2015, normalised to 100 in 1995



Note: ICT: information and communication technologies.
Source: OECD (2019[11]), OECD Employment Outlook 2019: The Future of Work, Figure 2.1, https://doi.org/10.1787/9ee00155-en.

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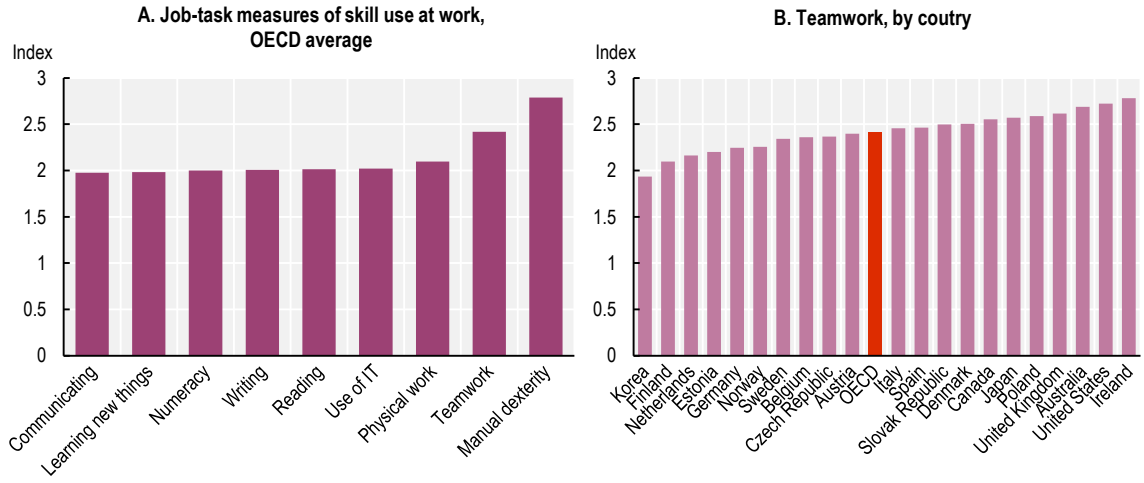
Technology changes how teams collaborate and operate

The new technologies also allow for new business models and innovative ways of working to emerge, providing more flexibility to both employers and workers. For instance, information and communication technologies facilitate teleworking, which has proven to provide crucial flexibility in the COVID-19 pandemic to keep businesses operating and allows for easier combination of work and care tasks, not only during crisis situations but in general. This is to the benefit of workers of all age groups in dealing with family responsibilities and their employers who manage to retain their employees under maximum working hours possible as commuting time from and to the workplace is saved.

These technologies also change the nature of how teams collaborate and operate. Teamwork is among the most frequently used skills at work, in particular in Anglo-Saxon countries (Figure 1.13). Networked ways of working foster collaboration between co-workers from disparate parts of the organisation, both in terms of content and geographical location. Effectively, this sets up undefined work groups next to the traditional team structure, so-called “hidden teams”. Older workers that exhibit good moderation skills based on their long-standing experience play a vital role here. Yet, older workers may not be getting the credit they deserve for improving team performance (Mercer, 2019[10]). A less defined nature of teams may make this even more likely. Making collaboration incentives and performance assessment age-inclusive is thus a crucial factor for strong teamwork, relevant performance measurement and successful business.

Figure 1.13. Teamwork is one of the skills most used at work

Job-task measures of skill use at work, indicator, 2012



Note: The OECD is an unweighted average of the 21 countries shown in Panel B.
Source: *OECD Database World Indicators of Skills for Employment,* https://stats-3.oecd.org/Index.aspx?DataSetCode=WSDB (accessed on 31 January 2020).

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A large potential for the future

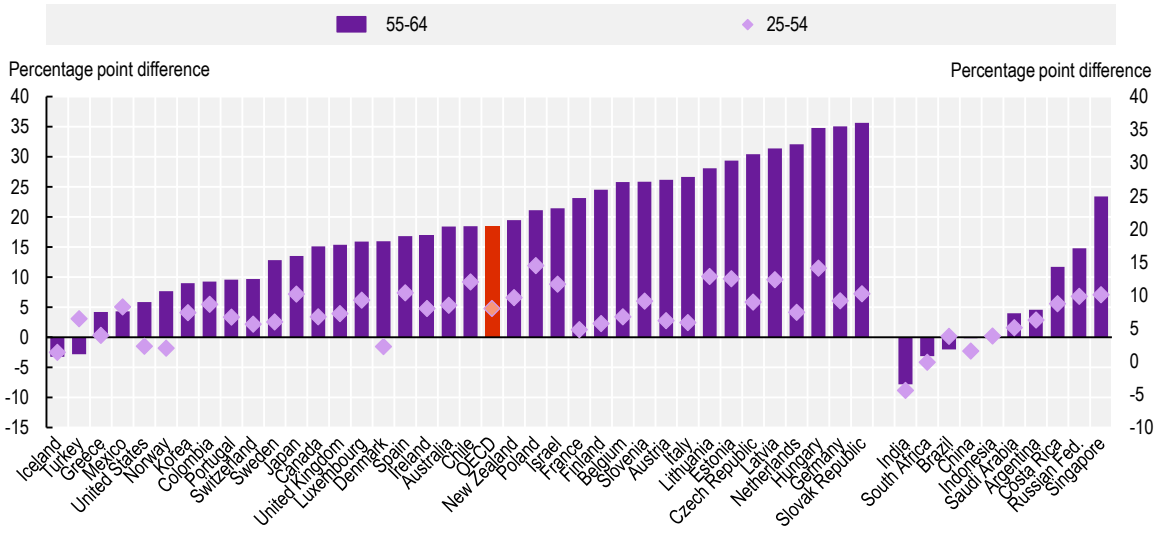
A multigenerational workforce can yield a stronger pipeline of talent, higher productivity and more resilience. It also improves workforce continuity, stability and retention of intellectual capital.

Older workers are key to addressing the challenges brought by ageing and new technologies. Labour market participation at older ages has substantially increased since the turn of the century and companies are using this new potential – employment rates of older workers have risen much more strongly than for the rest of the population (Figure 1.14) and this rise is marked across all education levels.

Employment rates for older workers are very high in countries like New Zealand, Iceland or Japan**.** As highlighted in (OECD, 2019[12]) and Figure 1.20 below, these countries perform well in the three dimensions put forward in the OECD Council Recommendation on Ageing.[2] In most parts of the OECD, however, labour market attachment of older workers remains still far below those top-performing countries. Especially low-educated people often have low employment rates at older ages that suggest a large potential for longer working lives (Figure 1.15). In fact, physical strain and health limitations can make it difficult for older workers to work in some occupations at older ages while a lack in skills and incentives for a longer working life through early-retirement schemes may prevent older workers from prolonging their career. In addition, perceptions of age discrimination remain very common despite it being banned in virtually all OECD countries which hinder employment prospects of all workers (see Chapter 3 for more discussion).

Figure 1.14. Growth of employment rates of older workers has been strong

Change in employment rates, 2000-19



Note: Data refer to the period: 2000-10 (China), 2000-18 (India), 2001-19 (Brazil, Colombia, Singapore, South Africa), 2004-19 (Argentina) and 2009-18 (Saudi-Arabia).OECD is an unweighted average.
Source: *OECD Employment Database,* https://www.oecd.org/employment/labour-stats/onlineoecdemploymentdatabase.htm, Argentina and Saudi-Arabia: International Labour Organization, ILOSTAT, https://ilostat.ilo.org and Singapore: Ministry of Manpower, https://stats.mom.gov.sg/Pages/EmploymentTimeSeries.aspx.

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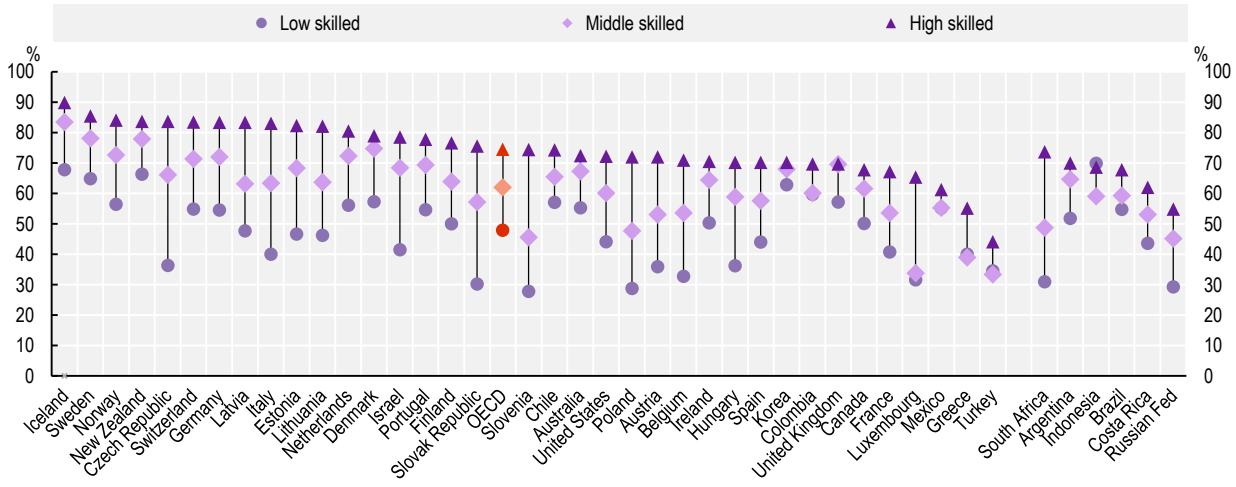
Figure 1.15. Older workers' labour market potential is still large in most countries

Employment rates by skill level[1] for persons aged 55-64, 2019[2]



Note: The OECD is an unweighted average and excludes Japan for which data are not available.
1. *Low skilled* refers to Below upper secondary education, *Middle skilled* to Upper secondary or post-secondary non-tertiary education and *High skilled* to Tertiary education.
2. Data refer to 2017 for Chile and Indonesia and to 2018 for Argentina, Brazil, the Russian Federation and South Africa.
Source: *OECD Education at a Glance, 2020*, http://stats.oecd.org/wbos/default.aspx?datasetcode=EAG_NEAC.

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At the same time, there is considerable scope for employing young people and especially so following the COVID-19 pandemic which has hit younger workers particularly hard (OECD, 2020[1]). That older workers are taking the jobs of the young, thereby causing youth unemployment and loss of career perspective remains a fallacy driven by a few exceptions (Box 1.3). In sum, younger workers benefit from the experience that older workers bring to the table augmenting the productivity of age-diverse teams (see Chapter 2 for more details).

Box 1.3. Young and old workers are not substitutes but complements

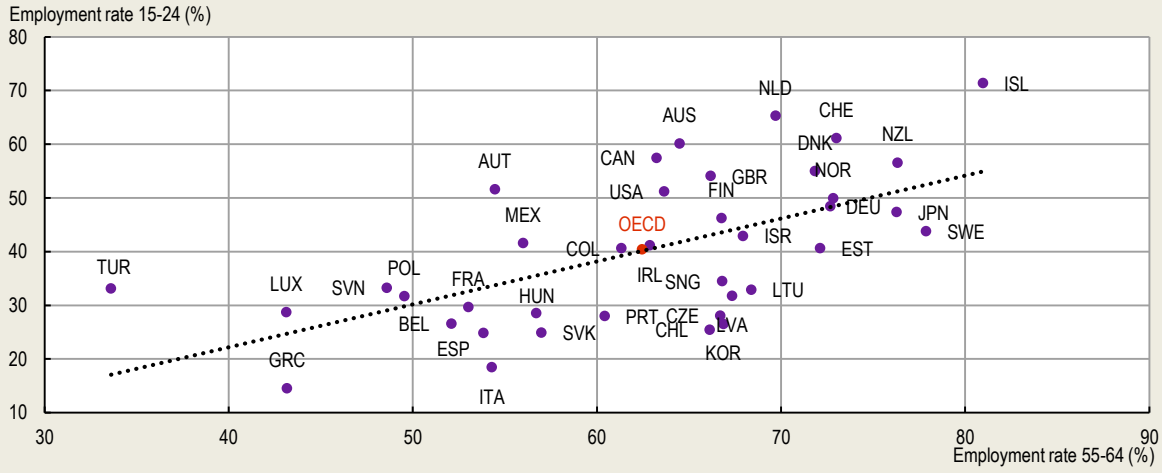
A conventional wisdom is that demand for labour is fixed so that older and younger workers compete for jobs. This is often referred to as the lump-of-labour argument. 30% of respondents to the 2015 ISSP survey said that employed people aged 60 or older take jobs away from the young.[1] This is a non-negligible number even if half of respondents disagreed with the statement and the remaining 20% were neutral. Such perceptions are nurtured by short-term crisis situations in which companies need to reduce or at least not expand their workforce while workers seek to remain in their jobs as the future seems uncertain. An example is the public debt crisis in Italy in which the Fornero reform in 2011 postponed over night the retirement age of cohorts that were about to retire. Boeri, Garibaldi and Moen (2017[13]) argue that the reform leveraged the negative impact of the crisis on youth unemployment by keeping older workers in the workforce who otherwise would have made space for the young to move up.

In general, the wisdom of the young and the old being substitutes rather than complements is a fallacy. The empirical literature that specifically analyses for many different countries the relationship between younger workers' employment and that of older workers does not find a crowding-out effect (OECD, 2013[14]). One indicator is the positive correlation between the employment rates of older and younger workers among OECD countries (Figure 1.16). This positive relationship between employment of the young and the old is not the results of factors that commonly affect all jobs in an economy in the same way, like public labour market policies or the business cycle (OECD, 2013[14]).

The reason is simple; younger and older workers differ in skills and experience, the closest substitute for an older worker is another older worker rather than a younger worker. Situations of low labour demand will always create difficulties to enter the labour market and younger workers are more likely to search for a new (maybe the first) job and may thus suffer more in crisis situations than their older peers. This is, however, no indication of being substituted by an older colleague. As a consequence, past policies to promote early retirement in the hope of lifting youth employment in OECD countries have proven ineffective (Böheim and Nice, 2019[15]).

Figure 1.16. Employment rates of the young and old are positively correlated

Employment rate by age group, 2019



Note: The OECD is an unweighted average.

Source: OECD database on *Labour Market Statistics by sex and age – indicators*: employment-population ratios, http://stats.oecd.org//Index.aspx?QueryId=64196 (accessed on 3 November 2020) and the Ministry of Manpower, https://stats.mom.gov.sg/Pages/EmploymentTimeSeries.aspx for Singapore.

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However, both public and employer policies need to be well designed to fully benefit from the skills and experiences of both younger and older workers. In some countries like Korea, concerns that delaying the mandatory retirement age may reduce youth employment persist (OECD, 2020[16]). This is due to widespread seniority-based wages that may exceed productivity and affect companies' competitiveness and therefore ability to hire younger workers, and the labour market with high-quality jobs in the public sector and in large firms in limited supply (Hwang, 2013[17]). A performance-based wage setting system and public policies against labour market duality are crucial components to benefit fully from the advantages of the multigenerational workforce.

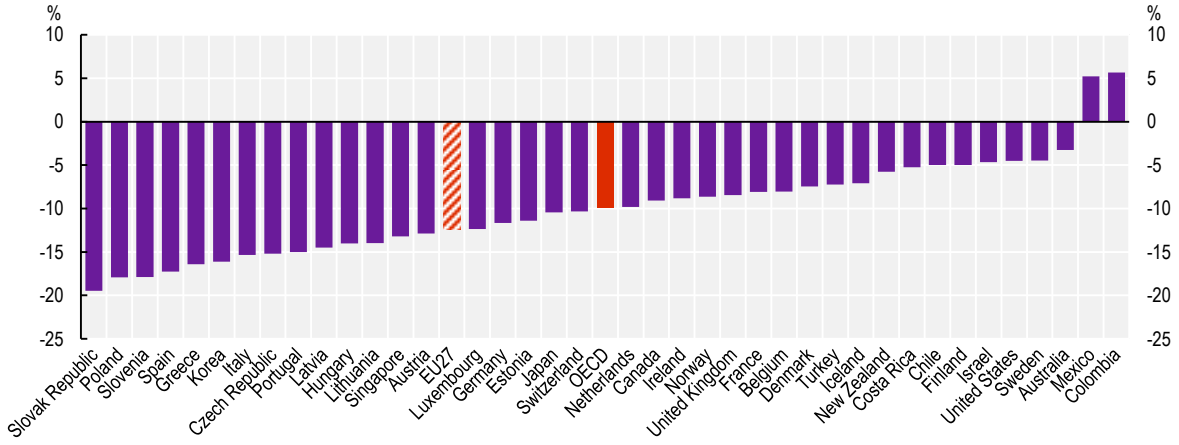
1. International Survey of Social Protection (ISSP), 2015, Work Module IV, question O6 "To what extent do you agree or disagree with the statement: When people aged 60 and over are employed, they take jobs away from the young?"

Further integrating women and older workers can boost GDP

Were employment rates in all age groups to remain at todays' level, ageing and low fertility rates would reduce the share of the labour force in the total population. Abstracting from productivity gains due to technological progress or other factors, real GDP per capita would drop by 10% on average by 2050 in all OECD countries except Colombia and Mexico. Countries like the Slovak Republic, Poland, Slovenia, Spain, Greece, Korea and Italy would be hit particularly hard with a loss in real GDP per capita of more than 15% (Figure 1.17).

Figure 1.17. Population ageing and low fertility rates will lower living standards if employment rates remain unchanged

Change in real GDP per capita in 2018-50 if employment rates in all age groups remained constant



Note: This calculation abstracts from productivity gains due to technological progress or other factors and assumes that firms adapt the capital stock along with changes in labour input to keep the capital-labour ratio constant. OECD and EU27 are unweighted averages. EU27 excludes the United Kingdom.

Source: OECD calculations based on the model described in 0 using employment rate data from national labour force surveys and the European Union Labour Force Survey.

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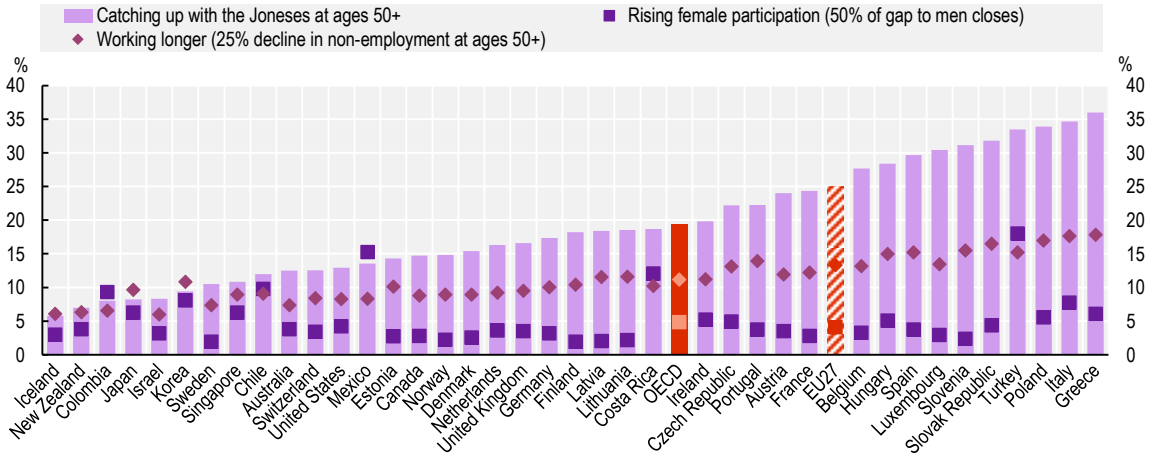
However, in all countries there is scope for mitigating or even overcoming this negative trend if companies and governments would fully tap into the potential of female and older workers. Three scenarios are considered (see 0 for details on scenarios and methodology):

- A scenario where the 2018 gap in employment rates between men and women is closed by half by 2050 (i.e. closing half of the gender gap) would raise real GDP per capita in 2050 by 5% on average in the OECD and by about 15% in Mexico and Turkey where women still participate substantially less in the labour market than men (Figure 1.18).
- If, alternatively, countries manage to turn the projected longevity gains of the coming decades into longer working lives this would boost living standards even more. In a “working longer” scenario, an 11% rise in real GDP per capita in 2050 could be expected on average in the OECD if a quarter of those people aged 50 to 79, who are not in work today (2018), would be working in 2050.
- Finally, a “catching up with best in class countries” scenario in which all countries match the employment rates of the 50-year-olds and above to the top-performing countries, could add, on average in the OECD, nearly 20% to 2050 real GDP per capita. This exemplifies the significant potential that lies in the extension of working lives for economic performance.

Figure 1.18. Longer working lives would boost living standards substantially

Change in real GDP per capita in 2050 from increased labour market participation among older workers



Note: Data display the increase in real GDP per capita in 2050 that results from the respective scenario compared to the baseline scenario in which employment rates in all countries remain at their 2018 level: i) "Catching up with the Joneses" refers to achieving employment rates for people aged 50 or more in each 5-year age group and for both genders in line with countries such as New Zealand and Iceland, which have the highest rates in 2018; ii) Rising female participation assumes the gap in employment rates between men and women observed in 2018 closes by half in each 5-year age group by 2050 and iii) Working longer assumes that rates of non-employment (which equal 100% minus the employment rate) for people aged 50 to 79 decline in each 5-year age group and for both genders by one-quarter compared to 2018. More details on scenarios and methodology in 0. OECD and EU27 are unweighted averages. EU27 excludes the United Kingdom.
Source: OECD calculations based on the model described in 0 using employment rate data from national labour force surveys and the European Union Labour Force Survey.

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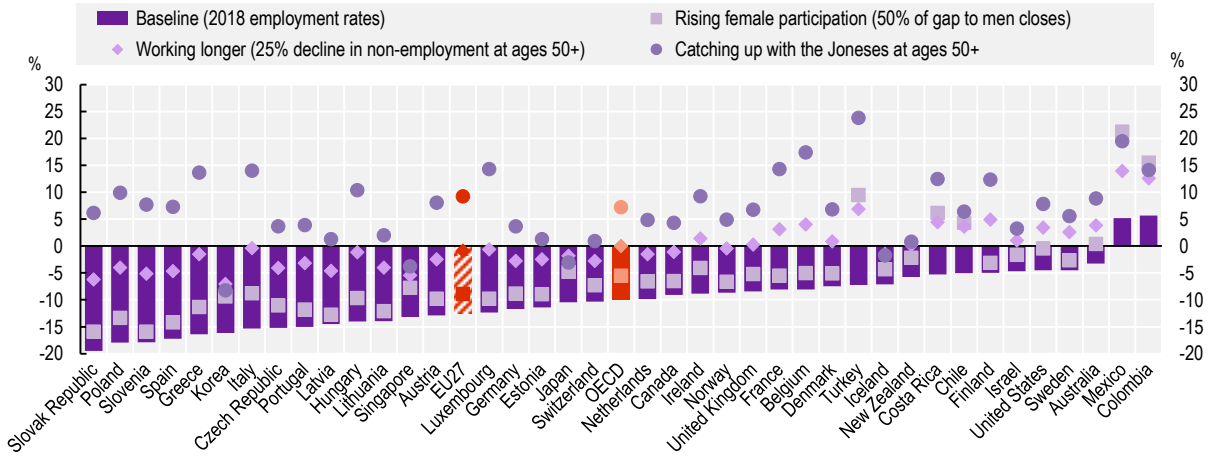
All three scenarios would have substantial positive effects on living standards, here measured as real GDP per capita. Depending on scenario and country, these positive effects would mitigate, offset or even overcompensate the detrimental effects from population ageing and low fertility rates by 2050 (Figure 1.19).

Overall, a wider labour pool from longer working lives and more women in the workforce would be of significant benefit to countries that face pressure on their supply of labour due to population ageing and low fertility rates. In addition, a more diverse workforce has the potential to elevate firm productivity, e.g. through skill complementarity of workers from different generations and lead to positive effects on various business outcomes as shown in Chapter 2.

Figure 1.19. Longer working lives would (more than) compensate the loss in living standards from population ageing and low fertility rates

Change in real GDP per capita between 2018 and 2050 for several alternative scenarios



Note: Data display the change in real GDP per capita between 2018 and 2050 induced by population ageing and – except for the baseline scenario in which employment rates in all countries remain at their 2018 level – changes in employment rates in accordance to the respective scenarios (described in more detail in note of Figure 1.18 and 0). This calculation abstracts from productivity gains due to technological progress or other factors and assumes that firms adapt the capital stock along with changes in labour input to keep the capital-labour ratio constant. OECD and EU27 are unweighted averages. EU27 excludes the United Kingdom.
Source: OECD calculations based on the model described in 0 using employment rate data from national labour force surveys and the European Union Labour Force Survey.

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Countries and companies need to set the right policies to unleash the future potential

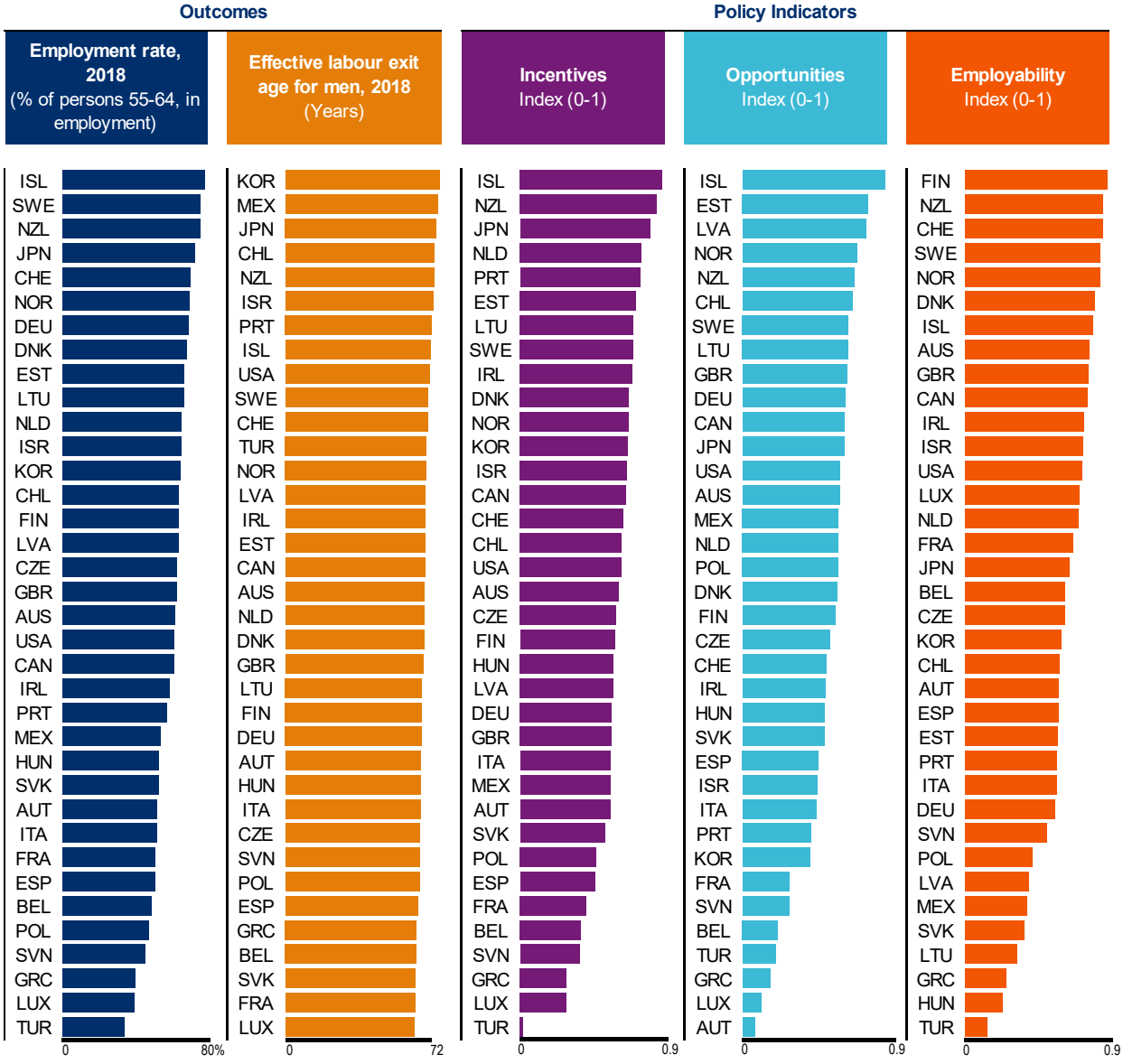
Unleashing the large future potential that longer working lives and multigenerational workforces offer, will need solutions and interventions across public, private and non-profit sectors to help workers get the supports across the life course to ensure their ability to work as long as they want or need.

Today, large differences in incentives, opportunities and employability of older workers across countries exist leading to different labour market outcomes (Figure 1.20). Essentially countries which provide better incentives (e.g. reward work and later retirement), better opportunities by successfully hiring and retaining workers and invest more in employability of workers via training and good quality jobs do better in promoting employment for older workers. Moreover, many of the obstacles that make working longer difficult are rooted in the disadvantages that people experience earlier in their lives – in health, in education, in employment, in earnings. Unfolding the potential of longer and more productive lives therefore calls for a life course approach.

Governments will set the frame of what is possible and determine the policy context for companies (OECD, 2019[12]). Employers need to adapt to the given circumstances to harness the large potential that multigenerational workforces provide for the future. Chapters 3 to 5 of this report focus on the role of employers and show that policies affecting recruitment, hiring, assessment, retention, compensation, life-long learning, health and retirement all need to be age and stage inclusive to strengthen the future of business in ageing societies.

Figure 1.20. Public and employer policies determine incentives, opportunities and employability for older workers

Employment rate (%), Effective labour exit age (years) and Indices for incentives, opportunities and employability



Note: The effective labour market exit age is defined as the average age at which older workers exit the labour force according to labour market participation rates at older ages. The indicators build on the OECD's Older Workers Scoreboard as well as information from OECD Pensions at a Glance and other data regularly collected on job quality and life expectancy. The indicators included for each dimension are as follows: Incentives: i) current statutory retirement ages (men); ii) gross replacement rates; and iii) impact on benefits when working and deferring pensions. Opportunities: i) retention rates; and ii) full-time earnings ratio 55-64/25-54. Employability: i) participation in training; ii) job strain; and iii) life expectancy at 65. All indices are normalised between 0 and 1 for all countries for the latest year available, and averaged across each dimension. Each index is constructed so that higher values correspond to employment promoting policies for older workers. For instance, the highest normal retirement age and the lowest gross replacement rate have the highest value on the scale. Similarly, higher seniority wages as measured by the full-time earnings ratio 55-64/25-54 and higher levels of job strain have lower values on the scale.

Source: OECD (2019[12]), *Working Better with Age, Ageing and Employment Policies*, Annex Figure 2.A.1, https://doi.org/10.1787/c4d4f66a-en.

Key takeaways

- Long-term trends of ageing populations and digitalisation, and the ongoing COVID-19 crisis make it imperative for employers to rely on the diversity and skills of all workers to ensure business continuity, organisational resilience and success.
- The good news is that on average today's older adults are healthier and better educated than any generation before and – health shocks such as COVID-19 aside – this trend will continue. Many of them who can also work or plan to carry on working well past traditional retirement ages.
- This is a trend to celebrate and employers who take the right steps can leverage the multigenerational workforce as a key to success. Yet, employees aged 65 and above are underrepresented in companies' workforces, compared to the overall labour force. Among other factors, ageism continues to hinder employment prospects of all workers.
- Rising longevity is challenging traditional work-life patterns. People go to school longer, marry later and less often, have children at later ages and expand their working lives beyond the statutory or mandatory retirement age, in full-time or part-time. In addition, women return to work more often and more quickly after giving birth while some men pause their job to care for their children. The traditional single-breadwinner model is outdated.
- More fluid working lives require agility and flexibility from employers and support from governments. Technological change can also help organisation of work and aid smoother transitions as illustrated by the high-take up of teleworking during COVID-19 crisis which enabled many workers to continue to work in combination with care tasks or education.
- If no action is taken to improve employment rates in all age groups, population ageing would reduce living standards in the OECD. Yet, despite the overall positive trend of rising employment among older workers, their talent remains underutilised in too many countries and companies.
- With the right employer practices and government support, more can be done to integrate older workers, which can boost economic performance and living standards.

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Annex 1.A. GDP growth calculations – methodology, scenarios and results

Methodology

Calculations of future GDP growth rely on three factors: (i) the development of capital input, (ii) labour input and (iii) productivity. The scenarios in this report focus on how changes in labour input driven by ageing and changing employment rates of women and at older ages in the coming three decades could contribute to growth. In order to do so, it abstracts from changes in productivity gains due to technological progress or other factors and assumes that firms adapt the capital stock along with changes to labour input to keep the capital-labour ratio constant. Under these assumption the growth in real GDP equals the growth in labour input while real GDP per capita grows with the rate of labour input growth minus the rate of total population growth as further explained in Annex Box 1.A.1.

Labour input is computed based on employment rates and population numbers, both by country, 5-year age group and gender. Employment rate data for 2018 stem from national labour force surveys and the European Union Labour Force Survey. Population data for 2018 and projections for future periods stem from OECD population projection database (unpublished), which is based on national sources, Eurostat population projections and UN World Population Prospects.

Annex Box 1.A.1. Methodology of calculating GDP growth

The growth effects from changing labour inputs are projected based on a standard Cobb-Douglas production function with constant elasticities to scale:

$$Y = K^{\alpha}(A\,L)^{1-\alpha}$$

where K and L are capital and labour input respectively and A is the parameter of (labour-augmenting) technology. α is the elasiticity of the production to capital input. Abstracting from growth effects from technological change one can normalise – without loss of generality – A to unity. Re-writing the function in logarithms (indicated by small letters) shows that growth in real GDP composes of changes in capital intensity I ($:= K/L$) and labour input L:

$$y = \alpha\, i + l$$

How firms will adapt capital input in response to changes of labour input in the future depends on how technological development will affect the degree of substitutability or complementarity between capital and labour which is highly uncertain. Also, changes in capital intensity have shown to contribute comparatively little in explaining economic growth in the last decades (see, e.g. Jones (2016[18]), for the United States).

The calculations in this report rely on the assumption that the capital intensity in the production remains constant in all scenarios of the future which means that firms adapt their capital stock proportionally to changes in labour input. Hence, i equals 0 and growth in real GDP equals labour input growth while real GDP per capita grows with the rate of labour input growth minus the rate of total population growth.

Labour market scenarios for 2050

Several scenarios exemplify how population ageing may hit on economic growth in the coming decades and how both longer working lives and additional labour input from more female labour market participation may contribute to continued growth. A short description of the considered labour market scenarios for 2050:

- ***Baseline:*** employment rates in each group defined by country, gender and 5-year age interval remain at the 2018 level.
- ***Rising female labour market participation:*** in each country and for each 5-year age group, the observed 2018 gap in employment rates between men and women closes by half.
- ***Working longer:*** in each country and for each gender, rates of non-employment decline for the age groups 50-54, 55-59, 60-64, 65-69, 70-74 and 75-79 by one-quarter compared to 2018. For example, an employment rate of 60% rises to 70% (= 100% – 40% * 0.75) and a rate of 80% rises to 85% (= 100% – 20% * 0.75). Employment rates in all other age groups remain at 2018 level.
- ***Best performing countries:*** In each country and for each gender, employment rates for all 5-year age groups at 50-54 or above equal the maximum employment rate in this group in 2018 among all OECD countries. Employment rates below age 50 remain at 2018 level.

Labour market scenarios for 2030 and 2040

To compute GDP growth by 2030 and 2040, the 2050 scenarios are assumed to be fulfilled stepwise with the steps becoming smaller over time. This resembles that it gets harder to make further progress the more already is achieved. In more detail:

- ***Rising female labour market participation:*** the gender gap is assumed to close as follows: 25% by 2030, 40% by 2040 and 50% by 2050.
- ***Working longer:*** non-employment rates at older ages are assumed to decline as follows: 12% by 2030, 20% by 2040 and 25% by 2050.
- ***Best performing countries:*** the catch-up with countries that have highest employment rates at older ages in 2018 is assumed to evolve as follows: 45% by 2030, 80% by 2040 and 100% by 2050.

Change in GDP between 2018 and 2030, 2040 or 2050 for all scenarios

Annex Table 1.A.1 collects the change in real GDP per capita between 2018 and 2030, 2040 or 2050 for all considered alternative scenarios described above. For the baseline scenario, listed changes in real GDP per capita are a result of population ageing while for the other scenarios they result from the combination of population ageing and changes in employment rates.

Annex Table 1.A.1. Change in real GDP per capita (%) between 2018 and 2030, 2040 or 2050 for several alternative scenarios

Baseline (A), rising female labour market participation (B), working longer (C), catching up with the Joneses (D)

%	2018-30				2018-40				2018-50			
	(A)	(B)	(C)	(D)	(A)	(B)	(C)	(D)	(A)	(B)	(C)	(D)
Australia	-2.7	-0.8	0.7	2.6	-3.3	-0.3	2.3	6.2	-3.3	0.4	3.8	8.8
Austria	-8.0	-6.4	-2.9	1.6	-10.9	-8.4	-2.1	6.1	-12.9	-9.8	-2.5	8.1
Belgium	-5.1	-3.5	1.0	6.8	-6.7	-4.3	3.3	14.0	-8.1	-5.1	4.0	17.4
Canada	-6.7	-5.4	-2.6	-0.5	-8.3	-6.3	-1.8	2.6	-9.1	-6.5	-1.1	4.3
Chile	0.3	4.9	3.7	4.5	-1.7	5.6	4.5	6.6	-5.0	4.3	3.6	6.4
Colombia	3.6	8.2	6.2	6.7	6.9	14.7	11.9	13.0	5.6	15.5	12.6	14.1
Czech Republic	-5.1	-3.1	-0.6	2.0	-10.1	-6.7	-1.9	4.4	-15.2	-11.0	-4.1	3.6
Denmark	-4.8	-3.5	-0.6	1.9	-8.5	-6.6	-1.4	3.5	-7.4	-5.1	0.8	6.8
Estonia	-3.9	-2.7	0.0	1.0	-6.7	-4.7	0.1	2.8	-11.4	-9.0	-2.4	1.3
Finland	-2.9	-1.9	1.9	4.8	-3.3	-1.7	4.4	9.9	-5.0	-3.1	4.9	12.3
France	-4.8	-3.4	1.0	6.1	-7.7	-5.6	1.8	11.1	-8.1	-5.5	3.1	14.3
Germany	-7.9	-6.4	-3.1	-0.6	-10.7	-8.4	-2.7	2.3	-11.7	-8.9	-2.8	3.7
Greece	-7.0	-4.0	0.1	7.0	-12.8	-8.3	-0.2	13.0	-16.4	-11.4	-1.5	13.7
Hungary	-3.8	-1.5	1.6	5.9	-10.0	-6.3	-0.3	9.2	-14.0	-9.7	-1.2	10.4
Iceland	-3.6	-2.3	-1.2	-1.5	-5.0	-2.8	-0.7	-0.9	-7.1	-4.3	-1.4	-1.7
Ireland	-0.7	1.7	3.6	6.8	-3.9	0.0	4.0	10.6	-8.8	-4.1	1.4	9.2
Israel	-2.7	-1.2	0.0	0.9	-3.5	-1.1	1.0	2.9	-4.7	-1.6	1.0	3.3
Italy	-6.3	-2.5	1.0	7.6	-12.6	-7.0	0.5	12.7	-15.4	-8.8	-0.4	14.0
Japan	-3.6	-0.7	0.0	-0.5	-7.2	-2.5	-0.5	-1.6	-10.4	-4.8	-1.8	-3.1
Korea	-4.1	-0.2	-0.2	-0.4	-10.7	-4.9	-3.4	-4.4	-16.1	-9.4	-7.1	-8.3
Latvia	-8.1	-7.2	-3.4	-1.5	-10.4	-9.1	-2.5	2.0	-14.5	-12.7	-4.6	1.3
Lithuania	-9.4	-8.4	-4.4	-2.4	-11.6	-10.0	-3.1	1.5	-14.0	-12.1	-4.0	2.0
Luxembourg	-4.3	-3.0	0.8	6.6	-8.3	-6.2	0.7	11.9	-12.4	-9.8	-0.6	14.3
Mexico	4.0	11.8	7.1	9.2	5.4	18.1	11.6	15.8	5.2	21.3	14.0	19.5
Netherlands	-6.2	-4.5	-1.8	0.9	-10.4	-7.8	-3.1	2.1	-9.8	-6.6	-1.5	4.9
New Zealand	-3.6	-1.7	-0.8	-0.9	-5.4	-2.6	-0.6	-0.3	-5.8	-2.2	0.2	0.8
Norway	-3.2	-2.1	0.6	2.6	-7.0	-5.4	-0.4	3.7	-8.6	-6.6	-0.5	4.9
Poland	-6.9	-4.7	-1.2	3.7	-11.7	-8.0	-1.8	9.3	-17.9	-13.4	-4.0	9.9
Portugal	-4.9	-3.3	0.4	3.5	-11.1	-8.5	-1.6	4.6	-15.0	-11.8	-3.2	3.9
Slovak Republic	-6.6	-4.8	-1.4	2.7	-12.2	-9.4	-2.8	6.7	-19.5	-15.9	-6.2	6.1
Slovenia	-8.7	-7.6	-2.7	2.6	-13.7	-11.9	-3.3	7.5	-17.9	-15.9	-5.2	7.7
Spain	-6.3	-4.5	-0.6	4.5	-13.1	-10.5	-2.6	7.8	-17.3	-14.2	-4.7	7.3
Sweden	-2.5	-1.5	0.8	1.9	-3.6	-2.1	2.1	4.5	-4.5	-2.6	2.6	5.6
Switzerland	-5.4	-3.8	-1.9	-0.5	-8.1	-5.6	-1.8	1.0	-10.4	-7.3	-2.8	0.9
Turkey	-2.4	6.3	3.0	9.5	-5.0	8.6	5.4	18.8	-7.2	9.5	6.9	23.8
United Kingdom	-4.5	-2.8	-0.3	2.3	-6.5	-3.9	0.8	5.8	-8.4	-5.2	0.3	6.7
United States	-3.4	-1.3	0.5	2.1	-4.4	-1.1	1.9	5.3	-4.5	-0.5	3.4	7.8
OECD	**-4.4**	**-2.1**	**0.1**	**3.0**	**-7.4**	**-3.8**	**0.5**	**6.3**	**-9.9**	**-5.5**	**0.0**	**7.2**
Costa Rica	0.0	5.5	3.4	5.9	-1.5	7.7	5.3	11.1	-5.2	6.2	4.4	12.5
EU27	-5.2	-3.4	0.0	4.0	-9.1	-6.2	0.0	8.2	-12.5	-8.9	-0.9	9.2
Singapore	-5.5	-2.6	-1.9	-1.4	-10.4	-5.9	-4.2	-2.8	-13.2	-7.8	-5.4	-3.8

Source: OECD calculations.

StatLink https://stat.link/mywl6j

Notes

[1] Capital services measure the role of the capital input, such as machinery and equipment, in the production process and equal, in principle, the rental price of such goods that could be directly observed if markets existed for all capital services (OECD, 2019[19]).

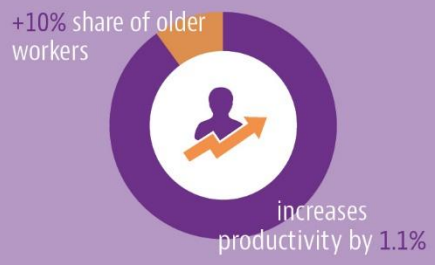
[2] The OECD Council recommendation on Ageing and Employment adopted in 2015 puts forward an age-friendly agenda in three broad policy areas to promote employment at an older age: 1) improving incentives to work at an older age; 2) tackling employer barriers to hiring and retaining older workers; and 3) improving the employability of older people through a lifecycle approach.

2 Good for business: Age diversity in the workplace and productivity

Rapid population ageing is pushing companies towards greater diversification of the age profile of their employees. This raises questions about the effects of increased age diversity on business performance. The chapter provides new international evidence that a greater inclusion of older workers is likely to be good for firm productivity (i.e. to raise the value added per worker of the firm). A key advantage of a multigenerational workforce is that it enables effective synergies between experienced and less experienced staff to the benefit of employers and employees. Reaping these benefits will require putting in place tailored support at all ages and strengthening collaboration between generations.

Infographic 2.1. Key facts: Age diversity: Good for business productivity

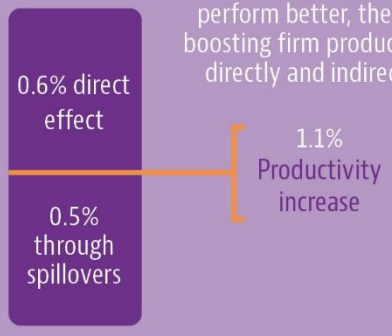
Older workers can boost productivity



A firm with more older workers than the average firm is more productive.

Positive spillover effects

The experience of older workers helps younger workers perform better, thereby boosting firm productivity directly and indirectly.



Lower turnover

Turnover is 4% lower at firms that have a 10% higher share of workers aged 50 and over.

Lowering turnover from a high level can promote firm stability and productivity.

CEOs: more experience, higher productivity

CEOs and other managers are 2-2½ years older in the 20% most productive firms compared with the 20% least productive firms.

Better management of age diversity is needed

Unbiased recruiting processes are used by only 6% of employers.

Most businesses are yet to take action to reap the benefits of an age-diverse workforce

report that they would likely implement or at least explore multigenerational workforce policies.

Introduction

Population ageing is pushing businesses towards a greater diversification of the age profile of their staff (see Chapter 1). The obvious way to counter the impending decline in employment is to unleash the underutilised labour market potential of older workers. However, the effects of extending working lives and employing a more age-diverse workforce than in the past go far beyond mobilising additional labour supply. They matter for the adaptability and resilience of businesses.

If it is well-managed, age diversity in the workplace can bring about several business benefits. For a start, an age-diverse workforce can offer a larger set of skills and may thereby play a key role for sustainability and profitability. Age diversity can also reduce the risk for the employer that a large part of the workforce stops working at the same time due to common life events for certain age groups – like the birth of a child – or other health events or risks. Multigenerational workforces may therefore be more stable and resilient to shocks, such as that induced by COVID-19; yet, the association of diversity with resilience has been largely unexplored (Duchek, Raetze and Scheuch, 2019[1]). An age-inclusive work culture also serves strategic management purposes, since some firms use the reputation of being an age-inclusive employer as a marketing tool to attract talent. Moreover, an age-diverse workforce may lead to better business-to-consumer and business-to-business relationships, as representing the age groups of the firm's clients in the own workforce makes it easier to know what customers need. In fact, human resource professionals stress that enhanced customer service is one of the key benefits of age-diverse teams (CIPD, 2014[2]). For these benefits to materialise, and for age diversity not to be a bane for companies, the right policies need to be put in place (see Chapters 3, 4 and 5).

Many aspects at the interface between age diversity and firm adaptability and resilience are connected to the question of productivity: how can more or the same output be produced with the same or fewer labour inputs? It has long been debated how productivity differs across age groups and whether employing more older workers is beneficial or not for companies' revenues. Some employers have concerns about business performance when it comes to greater age diversity, fearing a possible trade-off with productivity. On the one hand, some older workers may have less up-to-date knowledge of the latest technologies. On the other hand, older workers can bring greater experience, management skills and corporate know-how. These considerations are of particular importance given the backdrop of productivity growth in many advanced economies falling to unprecedented lows in the 2000s (OECD, 2016[3]). This chapter presents new international evidence on the business benefits of age diversity and on how multigenerational workforces affect productivity.[1]

Age diversity and productivity: How are they connected?

In analysing the links between age diversity and productivity, it is important to be clear on the definitions of age diversity and productivity and on the ways in which they are connected. Age diversity of a company's workforce rises when the company employs more older or younger workers or both, so that the spread of ages within the company increases.

Productivity as a measure of business performance

Productivity growth is the engine of economic and social progress. It means that people work smarter, not necessarily harder. The general concept is labour productivity which is output per unit of labour input (typically output per worker or hour worked). Higher productivity is often a win-win situation for employers and employees. For companies, it can bring improved profitability, the possibility to sell products at more competitive prices, a greater chance to raise market shares, increased scope to invest and a potential boost to their attractiveness as an employer. For employees, the most tangible benefit of higher productivity is that it usually comes with higher wages (Box 2.1).

Box 2.1. Higher productivity: Why it is good for businesses and employees

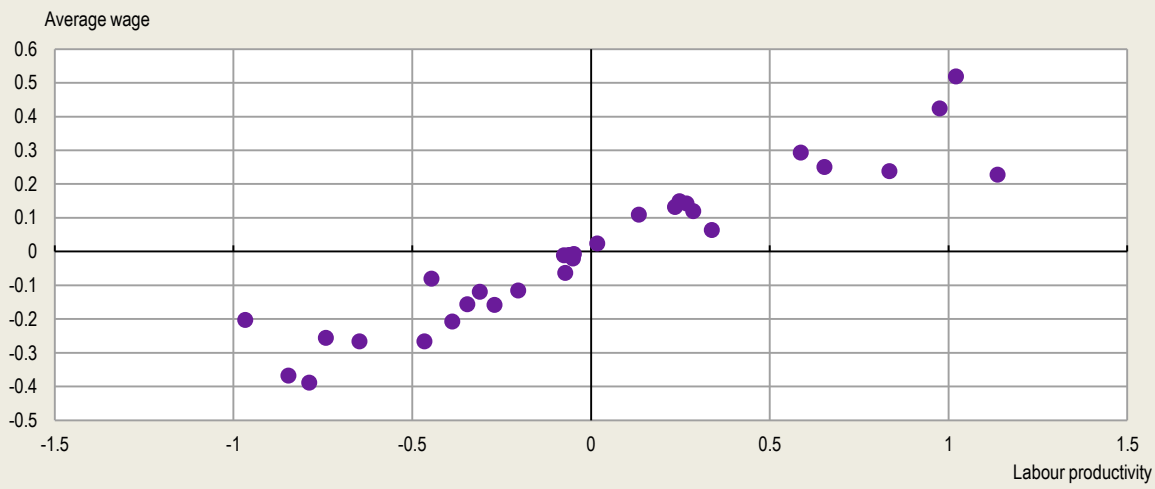
A firm that is more productive can produce more output with the same labour input or, equivalently, the same output with less labour. Conceptually, higher (labour) productivity can be achieved in two ways: by raising the physical and human capital (e.g. machines, equipment, computers, buildings and skills) available to employees when they work, or by improving the efficiency with which the firm uses labour and capital inputs for production (e.g. new production processes and better management techniques).

Economists distinguish between two types of productivity: labour productivity and multifactor (or total factor) productivity. Labour productivity is the more general concept and is defined as output per unit of labour input (usually output per worker or hour worked). Multifactor productivity is defined in a more restricted sense as it aims to isolate efficiency or innovation (i.e. the second part of labour productivity). It has the downside that it is not directly observed and needs to be inferred, while measuring labour productivity is straightforward.

Higher productivity is good for the firm and its workers. For the firm, it can bring key advantages, such as improved profitability and the possibility to offer its products and services at more competitive prices. For the employees, it typically comes with higher labour incomes. Wages are higher in countries where productivity is higher; and firms that are more productive can afford to pay higher wages. The data for Costa Rica, Finland, Germany, Hungary, Japan and Portugal, that this chapter uses, bear out strongly the positive relationship between firm productivity and worker pay (Figure 2.1). Similar evidence has been obtained for a wider set of countries (Berlingieri, Calligaris and Criscuolo, 2018[4]).

Figure 2.1. More productive companies pay higher wages

The relationship between firm productivity and employees' pay in Costa Rica, Finland, Germany, Hungary, Japan and Portugal



Note: The figure depicts five data points for each country, one for every labour productivity quintile. Labour productivity and average wage are calculated for each industry and then averaged across industries. For each country, both variables are demeaned by the average over the five quintiles. Labour productivity is log output per worker, and average wage is the definition (log wage per hour, day, week, month or year worked) available in the dataset. The data refer to 2017 for Costa Rica, Finland and Portugal, 2016 for Germany, 2013 for Japan and 2010 for Hungary.
Source: OECD calculations using linked employer-employee datasets for Costa Rica, Finland, Germany, Hungary, Japan and Portugal.

StatLink https://stat.link/dulgsb

The question of how age diversity influences productivity is therefore important for companies given that, with rapid population ageing and longer working lives, the workforce of most companies will increasingly span a wider range of ages.

The two ways in which age diversity affects firm productivity: The worker's own effort and co-worker complementarities

The productivity of an employee, who collaborates with other team members at work, is determined by two components: firstly, by the worker's own individual contribution (i.e. effort and skill); and secondly, by the collective contribution that results from the interactions with the other team members. Similarly, the effect of age diversity (or age composition) on productivity is determined by these two components as well: the individual productivity of each worker and how well workers of different ages collaborate, share knowledge and support each other in complementary ways.

Previous work has used various types of data – at the country, firm and worker level – to shed light on the overall age-productivity profile.[2] As Box 2.2 details, a common finding of research on worker productivity is that productivity increases in the earlier years of one's career. It is less clear what happens beyond prime age: the majority of existing studies find that productivity peaks when workers are in their 40s or 50s, and that it then plateaus or declines as people grow older, while a few studies also indicate that productivity continues to increase up to retirement. Hence, an overall takeaway of the evidence available prior to this report is that workers start their working life with comparatively low productivity and that middle-aged and older workers appear to have broadly similar high levels of productivity.

The age diversity-productivity relationship depends on the source of age diversity

These changes in productivity over people's lifetime matter for the relationship between age diversity and firm productivity, because differences in age diversity (i.e. in the age composition of a firm's workforce) mean differences in the productivity of the average worker. These changes in productivity over people's lifetime make also clear that the age diversity-productivity link depends on the source of differences in age diversity. For instance, the productivity of firms increases when greater age diversity reflects mainly more older workers (as in the context of population ageing) whose productivity tends to exceed that of younger workers and new entrants in the labour market. In cases where greater age diversity stems from a larger number of younger workers, productivity is likely to decline, reflecting their lower work experience.

A number of studies have looked at the relationship of age diversity with productivity (Box 2.2). However, these studies do not pay attention to the source of the differences in age diversity (i.e. more younger or more older workers or both), because they use, for example, the standard deviation for measuring age diversity. This is an important drawback, given the generally lower productivity of younger workers, and is likely to explain why very different results have been obtained. Moreover, the estimates in these studies on the relationship between age diversity and productivity mix the individual productivity effect with the co-worker complementarities effect. To date, no study on age diversity seems to have been designed with the objective in mind to allow for an explicit distinction between these two effects. It appears plausible that more numerous older workers make younger workers more productive, as the younger workers benefit from the experience and knowledge of their older colleagues.

The new evidence in this chapter brings the two strands of work – on the relationships between age and productivity and between age diversity and productivity – together. It highlights that the link between age diversity and productivity depends on whether diversity rises thanks to a larger number of young or older workers. It also shows that the effects of age diversity go beyond changes to individual productivities, as greater age diversity comes with greater complementarities of skills, knowledge and experience of workers of different ages. These complementarities create important spillovers and benefits, so that with an age-diverse workforce a firm's productivity is greater than the sum of the workers' individual productivities.

Box 2.2. The overall link between age diversity and productivity: What we know so far

This box surveys what is known from studies that combine firm- and worker-level micro-data (which is what this chapter does as well) to estimate the role of the age of employees and of age diversity for firm performance. A few analyses have instead used macro-data to compare trends in age composition and productivity across countries, finding that higher shares of those who are less than 40 or more than 50 years old are correlated with lower productivity growth, as workers in their 40s are the most productive (Aiyar, Ebeke and Shao, 2016[5]; Feyrer, 2007[6]). These aggregate data may, however, mask other factors potentially at play and do not allow investigating how age diversity affects the individual firm.

People tend to become increasingly productive over the first half of their working life

The majority of studies find that young workers are less productive than prime-age workers. This is the result of national studies for Austria, Canada, France, Israel, Japan, the Netherlands, Portugal and the United Kingdom (Aubert and Crépon, 2003[7]; Bryson et al., forthcoming[8]; Cardoso, Guimarães and Varejão, 2011[9]; Dostie, 2011[10]; Fukao et al., 2006[11]; Hellerstein and Neumark, 1995[12]; Mahlberg et al., 2013[13]; van Ours and Stoeldraijer, 2011[14]). For the United States, one study has obtained the same result that young workers are less productive, while another one suggests that young workers are as productive as prime-age workers (Haltiwanger, Lane and Spletzer, 1999[15]; Hellerstein, Neumark and Troske, 1999[16]). In Germany, young and prime-age workers also appear to be equally productive (Göbel and Zwick, 2012[17]). Only one study, on Belgium, finds that young workers are more productive than prime-age workers (Lallemand and Rycx, 2009[18]).

How productivity develops from prime working age to retirement is still being debated

Research is less conclusive on what happens to worker productivity from prime age until retirement. In Israel, firms with a higher share of older workers seem to be more productive (Hellerstein and Neumark, 1995[12]). Studies for Belgium, Canada and the United Kingdom suggest that they are less productive (Bryson et al., forthcoming[8]; Dostie, 2011[10]; Lallemand and Rycx, 2009[18]). Older workers in Austria, France, Germany, Japan, the Netherlands and Portugal appear to be as productive as prime-age workers (Aubert and Crépon, 2003[7]; Cardoso, Guimarães and Varejão, 2011[9]; Fukao et al., 2006[11]; Göbel and Zwick, 2012[17]; Mahlberg et al., 2013[13]; van Ours and Stoeldraijer, 2011[14]). An analysis of a German truck assembly plant suggests that productivity rises until age 65, as teams with older workers make fewer mistakes (Börsch-Supan and Weiss, 2016[19]). Studies for the United States indicate that older workers are equally productive as prime-age workers or less productive (Haltiwanger, Lane and Spletzer, 1999[15]; Hellerstein, Neumark and Troske, 1999[16]). There are likely several explanations for the differences in results, including differences in datasets, estimations and settings as well as, possibly, small average differences in productivity between middle-aged and older workers.

The existing literature on age diversity and productivity is inconclusive

In Belgium and Germany, age diversity in the company appears to reduce productivity (Backes-Gellner and Veen, 2012[20]; Garnero, Kampelmann and Rycx, 2014[21]), while in Denmark it does not seem to matter for productivity (Parrotta, Pozzoli and Pytlikova, 2014[22]). For Finland, higher age diversity has been found to be linked with a higher productivity of industrial plants (Ilmakunnas and Ilmakunnas, 2011[23]). Other studies have gone further in their argument. One on Belgium points out that the role of age diversity for company performance may be more nuanced than often thought, finding that age variety – with many workers of different ages – is good for productivity, while age polarisation – with many young and many old workers – is bad for productivity (De Meulenaere, Boone and Buyl, 2016[24]). Two studies argue that age diversity raises productivity, but only up to a point, beyond which the relationship turns negative (Grund and Westergaard-Nielsen, 2008[25]; Zelity, 2019[26]). Based on this research, advanced economies are on the negative side of the hump.

New international evidence on the overall link of age diversity with productivity

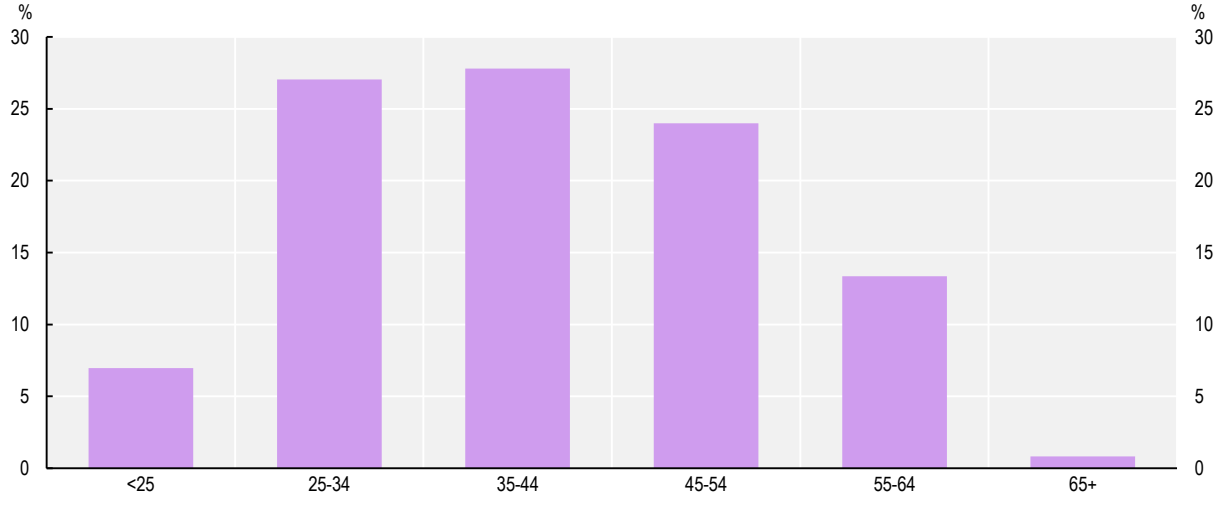
This section presents new international evidence on the overall link of age diversity with firm productivity, using linked employer-employee data. These data bring together firm-level information on productivity with worker-level information including on age. They tend to cover all firms and workers; results are therefore general and of high quality (Criscuolo et al., 2020[27]). The period considered is 2002-17, depending on the country. In contrast to previous studies, the analysis has the advantage that it pools data from six countries: Costa Rica, Finland, Germany, Hungary, Japan and Portugal.[3] Labour productivity is measured as value added per worker or, if value added is not available, as gross output per worker (Portugal). The focus of this section is on the overall link between age diversity and productivity taking account of both the individual productivity effect and the co-worker complementarities effect.

Considerable scope exists for increasing age diversity, particularly by employing more older workers

While young and older workers are an important part of the workforce in each of these six countries, there is considerable scope for greater age diversity, both at lower and higher ages (Figure 2.2). The gap in the employment rates of young and older workers relative to the rate for prime-age men is substantial, which is a phenomenon that goes beyond the six countries in this dataset (OECD, 2018[28]). On average across the 37 OECD countries, the employment gap is 32% for persons aged 55-64 and 9% for ages 15-29 (when excluding those in full-time education or training). The larger employment gap for older workers together with population ageing and rising labour force participation among older workers means that greater age diversity is likely to occur as a result of firms employing greater numbers of older workers relative to young workers.

Figure 2.2. The low employment rates of young and old leave much opportunity for greater age diversity

Average employment share of each age group in Costa Rica, Finland, Germany, Hungary, Japan and Portugal



Note: The figure depicts the unweighted average of employment shares across the six countries. The data refer to 2017 for Costa Rica, Finland and Portugal, 2016 for Germany, 2013 for Japan and 2010 for Hungary.
Source: OECD calculations using linked employer-employee datasets for Costa Rica, Finland, Germany, Hungary, Japan and Portugal.

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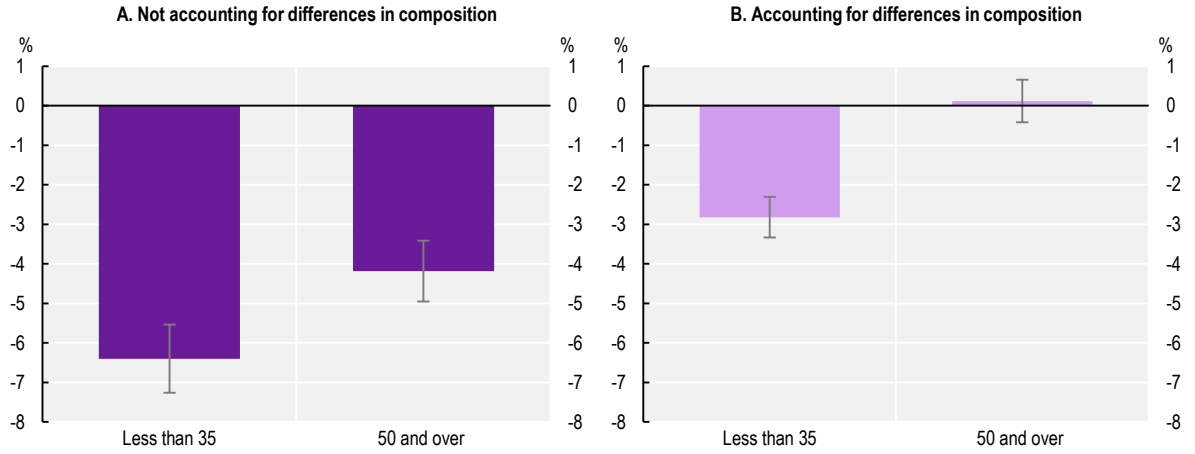
Empirical results show that older workers are as productive as prime-age workers

Linear regression analysis is used to model the association between age diversity, i.e. greater shares of young and older workers, and productivity.[4] The details of the results from this and other regressions in this chapter are in Annex 2.A. Age diversity at first sight appears to be correlated with lower productivity, as shown in Figure 2.3, Panel A. However, this may be an artefact of differences in the composition of workers and firms. Younger and older workers may have certain characteristics that are associated with lower productivity. They may also be employed in firms with certain characteristics that are associated with lower productivity. They could, for example, be less well educated or work in smaller firms, which tend to have lower productivity. In this case, age would not be the explanatory factor for the lower productivity of younger and older workers, but reflect other factors that happen to be correlated with it.

When accounting for these differences in factors other than age between firms and workers, it becomes clear that a higher proportion of younger and older workers among lower-productivity firms reflects to an important extent differences in the characteristics of younger and older workers and the firms for which they work rather than the role of age per se. As shown in Figure 2.3, Panel B, the estimates for the links between productivity and the shares of younger and older workers increase (i.e. become less negative). The estimate for workers aged 50 and over turns positive, although its small size and statistical insignificance indicate that older workers are similarly productive as prime-age workers.

Figure 2.3. Prime-age and older workers are more productive than younger workers

Change in firm productivity when the share of employees in the age group increases by 10%, with a corresponding decline in employees aged 35-49, for Costa Rica, Finland, Germany, Japan and Portugal



Note: The estimations regress log labour productivity on the two age shares, interacted country-year fixed effects and interacted country-industry fixed effects. Panel B adjusts for differences between firms other than age by adding education shares, the share of women and firm size shares. Firm age is not available in the data. The data average values for each decile by industry for the countries and years available in the dataset. Standard errors are clustered at the decile-industry-country level. The error bars indicate the 90% confidence interval. Annex 2.A provides further details on the regression results. The bars displayed multiply the regression coefficients by 2.2 which is 10% of the average shares of persons aged less than 35 and those 50 and over.
Source: OECD calculations using linked employer-employee datasets for Costa Rica, Finland, Germany, Japan and Portugal.

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Overall, these results corroborate earlier ones in the literature that young workers are the least productive and that the productivity of older workers is not too different to that of prime-age workers. Hence, if greater age diversity involves a larger share of both younger and older workers, firm productivity will be lower. If,

as is likely the case in the context of rapid population ageing, it involves only a larger share of older workers, with fewer young and prime-age workers, firm productivity will be higher.

Despite these positive findings, analysis over time (which re-ranks firms by their productivity level in each year) shows that age diversity – when measured as the combined share of persons aged less than 35 and those 50 and over – has not increased in the most productive firms. In the most productive firms, the decline in workers who are less than 35 years old has fully offset the increase in the share of workers aged 50 and over. By contrast, age diversity has risen the most in the least productive firms, where the increase in the share of workers aged 50 and over has been around 50% larger than in the most productive firms. The disproportionate increase in the employment of older workers at lower-productivity firms could reflect ageism and raises the concern that some older workers continue to face major barriers to find good-quality jobs despite their high productivity. Box 2.3 provides further insights on the factors that may stand behind the rising concentration of older workers in low-productivity firms.

Age diversity and complementarities between workers of different ages

The benefit of age diversity is that it enables workers of different ages to collaborate, share knowledge and support each other in complementary ways. Age diversity has the potential to make a firm's productivity greater than what the sum of its workers' individual productivities would suggest. Such complementarities tend to be particularly strong between young and older workers. Where young and older employees work together, young workers often benefit from the advice of their older colleagues, who can draw on their long experience, from the guidance that they receive from their managers, who may be older than they are, and from the transfer of firm-specific knowledge, accumulated over years, that age-diverse teams can ensure.

These benefits nothwithstanding, greater age diversity in the workplace can also face certain challenges, for example more potential sources of conflict, when younger workers manage older colleagues, and the lower job mobility of older workers, which makes it more difficult to hire them (IFF Research, 2017[29]). In how far these challenges play a role depends much on the extent to which governments and businesses confront them. With the right policies, as discussed in the following policy chapters, employers can reap the benefits of an age-inclusive workforce.

The analysis in this section provides evidence of the advantages that complementarities between old and young bring to companies with multigenerational workforces. It documents empirically three ways in which older workers benefit other workers and the firm:

- their lower worker turnover
- their greater management experience
- their greater general work experience

Lower worker turnover helps avoid excessive levels of staff fluctuation and fosters employment stability. Management practices are an important determinant of the performance of businesses (Bloom and Van Reenen, 2010[30]). General work experience promotes knowledge and information spillovers from older, more experienced employees to their younger colleagues. Research on these kinds of co-worker complementarities between workers of different ages has been scarce, even though human resource professionals and workers themselves name knowledge sharing and having different perspectives the key benefits of age-diverse teams (CIPD, 2014[2]).

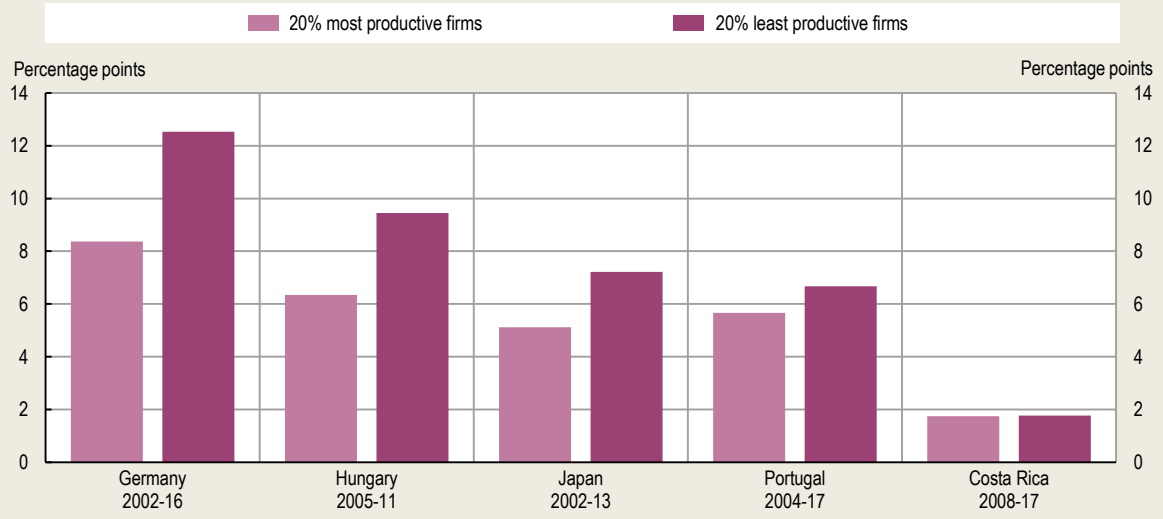
A key takeaway is that workers are more productive when they work with others who are of a different age, thanks to the complementarities between them. Therefore, if you have colleagues who are of a different generation to you, they make you perform better, and this is good for the company because its productivity becomes higher. This is one area, however, in which the COVID-19 crisis and increased teleworking in its wake pose challenges to companies, as they can make it harder for employees to interact and in particular for young workers to benefit from the guidance and knowledge of their older, more experienced colleagues.

Box 2.3. There is opportunity for high-performing firms to employ more of the increasing number of older workers

Many advanced countries experienced significant rises in the labour force participation of older workers over recent decades. However, a lot of the increasing number of older workers are employed in low-productivity firms: low-productivity firms exhibit larger increases in the share of older workers than high-productivity firms (Figure 2.4). Today, older workers are more likely to be in low-productivity than in high-productivity firms, whereas they were equally likely to work in low- and high-productivity firms at the start of the 2000s. The policy concern is that older workers end up in low-skilled jobs, in part due to negative stereotyping, age discrimination and a lack of investment in skills (i.e. lifelong learning).

Figure 2.4. An increasing share of older workers is employed in low-productivity and low-pay firms

Change in the share of employed aged 55 and over



Note: Labour productivity and share of persons aged 55 and over are calculated for each firm. For each quintile, they are then averaged first across firms within each industry and then across industries.
Source: OECD calculations using linked employer-employee datasets for Costa Rica, Germany, Hungary, Japan and Portugal.

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A relative decline in the skills of employed older workers is likely to have been a key factor behind the increased labour force participation of older workers in low-productivity firms. For instance, Germany introduced wage subsidies for older workers taking up a low-pay job, curtailed early retirement options and relaxed restrictions to fixed-term contracts for older workers as part of the Hartz reforms in the early 2000s. This and similar reforms elsewhere may have pushed low-skilled older workers in particular to continue working for low-productivity, low-pay firms.

The rising concentration of older workers may also reflect a growing skills mismatch, which could arise as a result of the wage-setting policies of firms. In many countries, wages rise with seniority and possibly exceed the employee's productivity at the later stages of the working life. Rather than adjusting wages through the renegotiation of employment contracts, these older workers may be dismissed and forced to accept a job in lower-productivity firms that pay lower wages. Population ageing may reinforce these dynamics by widening the gap between wages and productivity for older workers, especially in wage-setting systems based on deferred wage payments such as in Japan (Fukao et al., 2006[11]).

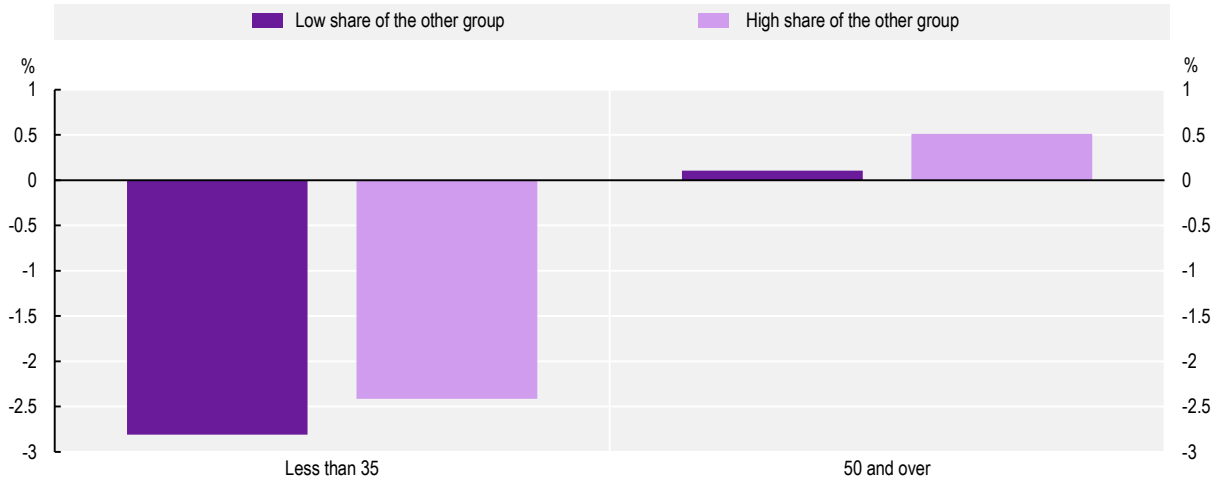
Complementarity in productivity and pay of young and older workers

The regression analysis in the previous section estimated the overall link of age diversity with productivity, taking account of both the individual productivity and the co-worker complementarities effect. The analysis can be adapted to help disentangle the co-worker complementarities effect. This can be done by allowing the coefficients on the share of young and older workers to differ according to the share of the other group. In practice, this can be achieved by adding an interaction term between the age shares of persons less than 35 years old and 50 and over. A positive coefficient on the interaction term signals beneficial spillovers from one age group to the other. While this setup does not allow establishing the direction of the spillovers (from old to young or young to old), the analysis at the end of the section (which has a more narrow focus) shows that more older workers are more beneficial for firm productivity, in part because this allows more younger co-workers to benefit from the experience of their older colleagues.

Younger and older workers are more productive when a larger number of colleagues of the other age group are in their firm (Figure 2.5). Persons aged less than 35 are generally the least productive, but they are more productive when they work with more older workers. Hence, while a larger number of young workers reduces productivity overall because of their lower productivity, it nevertheless creates beneficial spillovers between young and old. Persons aged 50 and over have similar productivity levels as those aged 35-49 and are more productive when there are more younger workers. The result of complementarity between young and older workers is stronger in services than in manufacturing industries.[5]

Figure 2.5. Employees are more productive when they work with others who are of a different age

Change in firm productivity when the share of employees in the age group increases by 10%, with a corresponding decline in employees aged 35-49, for Costa Rica, Finland, Germany, Japan and Portugal



Note: The estimations regress log labour productivity on the two age shares, an interaction term between the two age shares, education shares, the share of women and firm size shares, interacted country-year fixed effects and interacted country-industry fixed effects. Firm age is not available in the data. Low and high share of the other group take the values at the 25th and 75th percentiles in the sample. The data average values for each decile by industry for the countries and years available in the dataset. Annex 2.A provides further details on the regression results, including statistical significance.
Source: OECD calculations using linked employer-employee datasets for Costa Rica, Finland, Germany, Japan and Portugal.

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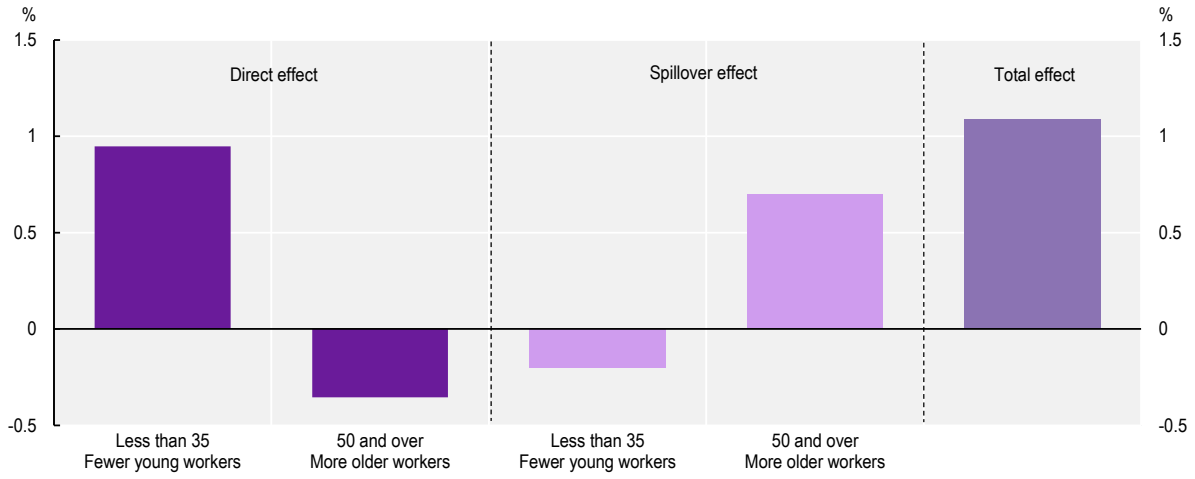
Quantitatively, a firm that has a 10% higher share of workers aged 50 and over than the average firm (i.e. 24% instead of 22%) is 1.1% more productive (Figure 2.6).[6] This calculation assumes that the shares of persons aged less than 35 and those 35-49 decline by an amount that is proportional to their average

size. Half of the increase in productivity (0.6%, the "direct effect") is due to the smaller number of younger workers, who are the least productive. The other half (0.5%, the "spillover effect") is primarily explained by the more numerous older workers, who enable further productivity-enhancing complementarities between younger and older workers.[7] The overall increase in productivity of 1.1% is sizeable: it exceeds the average annual productivity growth rate among OECD countries as well as G7 countries over the period 2000-18 (equal to 0.9%). Raising the share of older workers by 10% would therefore generate a one-off gain that is worth a bit more than one year of growth.

Figure 2.6. A higher share of older workers can boost productivity directly and indirectly

Change in firm productivity when the share of employees aged 50 and over increases by 10%, for Costa Rica, Finland, Germany, Japan and Portugal



Note: The figure depicts the association with firm productivity when the share of employees aged 50 and over increases by 10% (which equals 2.2% of all employees in the dataset), while the shares of employees aged less than 35 and those 35-49 decrease by 0.6 and 1.6 percentage points respectively, reflecting their relative shares. Persons aged 35-49 are the most productive themselves, which is why fewer younger workers increase firm productivity and more older workers decrease it via the "direct effect". The positive complementarity between younger and older employees means that fewer younger workers decrease firm productivity and more older workers increase it via the "spillover effect". Annex 2.A provides further details on the regression results, including statistical significance.
Source: OECD calculations using linked employer-employee datasets for Costa Rica, Finland, Germany, Japan and Portugal.

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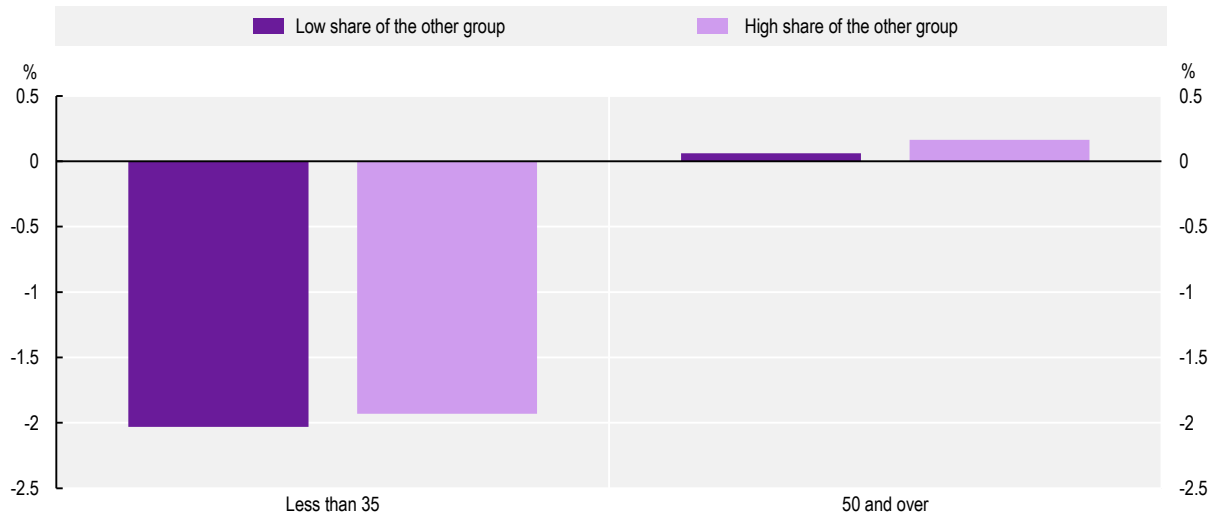
The estimates bring home the message that the relationship of age diversity with productivity depends on the precise nature of age diversity. When increased age diversity reflects a higher share of older workers and a lower share of prime-age workers, with no increase in the share of younger workers, age diversity increases productivity. This argument requires, however, that the skill composition of the additional older workers is similar to that of those already participating in the labour market. This may not have been the case in the context of the greater inclusion of older workers over the past two decades, with many of the additional workers being employed in low-productivity firms (see Box 2.3). When increased age diversity reflects similar increases in the shares of young and older workers, age diversity decreases productivity, since the negative individual productivity effect dominates the positive co-worker complementarities effect.

The complementarity between the skills of employees of different generations benefits employers, because it raises the productivity of the firm. Their employees benefit as well, as they are rewarded for the increased productivity with higher wages. Regressions that use as the outcome variable the average wage at the firm instead of firm productivity show that wages are higher for younger and older workers when the number of workers in the other age group is larger (Figure 2.7). The regressions also show that younger workers earn

a lower wage in general and that the pay of prime-age and older workers is similar. As is a usual finding in such studies, wages increase less than one-for-one with productivity. The wage results echo the estimates for productivity of workers of different ages and are further evidence of the strong correlation of wages with productivity. What overall comes out of the evidence is that multigenerational workforces create important positive synergies that are good both for the employer and for the employees.

Figure 2.7. Employees are rewarded with higher wages when they work with others of a different age

Change in the average wage at the firm when the share of employees in the age group increases by 10%, with a corresponding decline in employees aged 35-49, for Costa Rica, Finland, Germany, Japan and Portugal



Note: The estimations regress the log wage on the two age shares, an interaction term between the two age shares, education shares, the share of women and firm size shares, interacted country-year fixed effects and interacted country-industry fixed effects. Firm age is not available in the data. Low and high share of the other group take the values at the 25th and 75th percentiles in the sample. The data average values for each decile by industry for the countries and years available in the dataset. Annex 2.A provides further details on the regression results, including statistical significance.
Source: OECD calculations using linked employer-employee datasets for Costa Rica, Finland, Germany, Japan and Portugal.

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The benefits of the lower turnover of older workers for employment stability at the firm

Older workers are often seen to be more loyal and to provide continuity and stability to the firm. Their lower turnover can have various reasons, some more worrying, others less. The longer career of older workers may have enabled more of them to find the job and firm that is the best match for them. Their opportunity cost of staying with the same company is lower, as the expected return from switching jobs is limited given that they have fewer years left to work. Older workers are also more likely to have their own property and deeper social networks where they live, which reduces the willingness to change jobs when it involves changing residence. Pension regulations, seniority wages and hiring discrimination can play a role as well (see Chapter 3).

Employee turnover is a necessary ingredient of a dynamic and innovative economy. Some firms, however, face the opposite problem, namely that of an undesirably high and costly level of worker turnover (Boushey and Glynn, 2012[31]). In this context, older workers may increase employment stability at the firm since, by being less likely to leave the firm themselves, they can contribute to creating a firm culture that is no longer one where people come and go, but rather becomes one where employees want to stay. This can have

the benefit of raising incentives for staff to invest in firm-specific knowledge and take decisions that are of long-term benefit for the company (OECD, 2018[28]). Based on data for several individual companies, an ongoing project by the Mercer Workforce Sciences Institute finds evidence that supports the view that older workers stabilise work units by lowering excessive rates of job turnover.

Worker turnover is lower for older workers than for prime-age and for younger workers and the presence of older workers makes fewer young colleagues leave as well in the dataset of this chapter. These results are obtained when in the analysis of the previous section worker turnover replaces productivity.[8] Employee turnover is 4% lower at a firm that has a 10% higher share of older workers than the average firm.[9] Larger dismissal costs for longer-tenured, older workers are likely to contribute to the result, but cannot explain it in full. Hence, reducing high levels of turnover is one factor that may stand behind the positive synergies between younger and older workers for firm productivity. As was the case for productivity, age diversity is not unambiguously linked with lower employee turnover: in instances where more young workers increase age diversity, employee turnover goes up, due to the high fluctuation among younger staff.

The benefits of greater management experience of older workers for their co-workers

Management practices are an important determinant of business performance and hence the performance of each worker in the business. Companies with better management practices are more productive, larger and provide better jobs. They also grow faster and have higher rates of survival. Managers have therefore a key role and better managers, who may be able to draw on a greater experience, can make every worker in their team, or the entire firm in the case of senior managers, more productive.

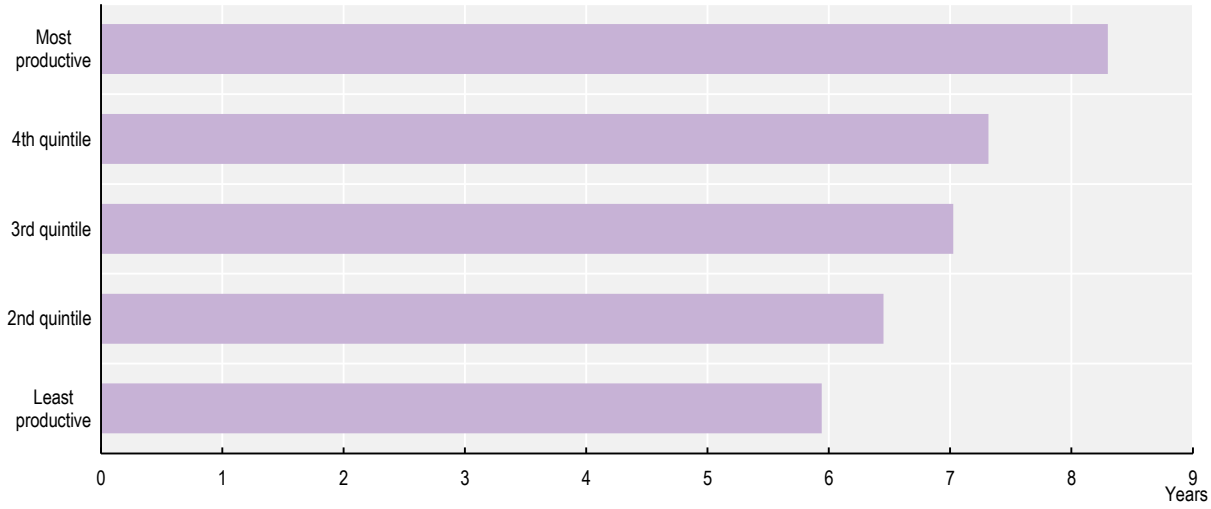
The most senior manager in many firms is the chief executive officer (CEO). As the CEO runs the company and takes key strategic decisions, the CEO's function has the potential to generate positive productivity spillovers for all other workers in the company. The dataset does not identify the CEO; however, the age of the person with the top wage at the company can be used as a proxy to obtain the age of the CEO. This is compared with the median age at the company, which gives a measure of age diversity between top management and the rest of the company's workforce.

Two insights stand out (Figure 2.8). Firstly, in firms at all productivity levels, the age of the CEO is higher than the median age of the employees at the company. Although this will not be a surprising result to many, it is important: companies view older workers to be better suited for top management jobs than young and prime-age workers. Secondly, this age gap between CEOs and the rest of the employees is greater by 2-2½ years in the 20% highest-productivity firms than in the 20% lowest-productivity firms. These two insights hold qualitatively in each of the four countries. They suggest that CEOs who are more experienced than other workers at their company make the company and its workers more productive.

The same insights hold for managers more generally, not only the CEO (Figure 2.9). Two of the countries in the data, Costa Rica and Germany, have information on managers based on occupational classification codes. Non-managerial workers are of a similar age in the 10% most productive firms and the 10% least productive firms. Managers, however, are older than other workers in the company for frontier and laggard firms. They are a further three years older in the most productive firms compared with the least productive ones. These results indicate overall that older workers are in managerial roles not just because of greater seniority, but also because they are able to use their experience and skills to improve the performance of the business and the staff.

Figure 2.8. The CEOs of higher-productivity firms are older relative to the other employees

Age difference between the CEO and the median employee at the firm for Costa Rica, Finland, Hungary and Japan



Note: Labour productivity as well as the age of the CEO and of the median employee are calculated for each firm. For each quintile, they are averaged first across firms within each industry, then across industries and finally across countries. The data refer to 2017 for Costa Rica and Finland, 2013 for Japan and 2010 for Hungary.
Source: OECD calculations using linked employer-employee datasets for Costa Rica, Finland, Hungary and Japan.

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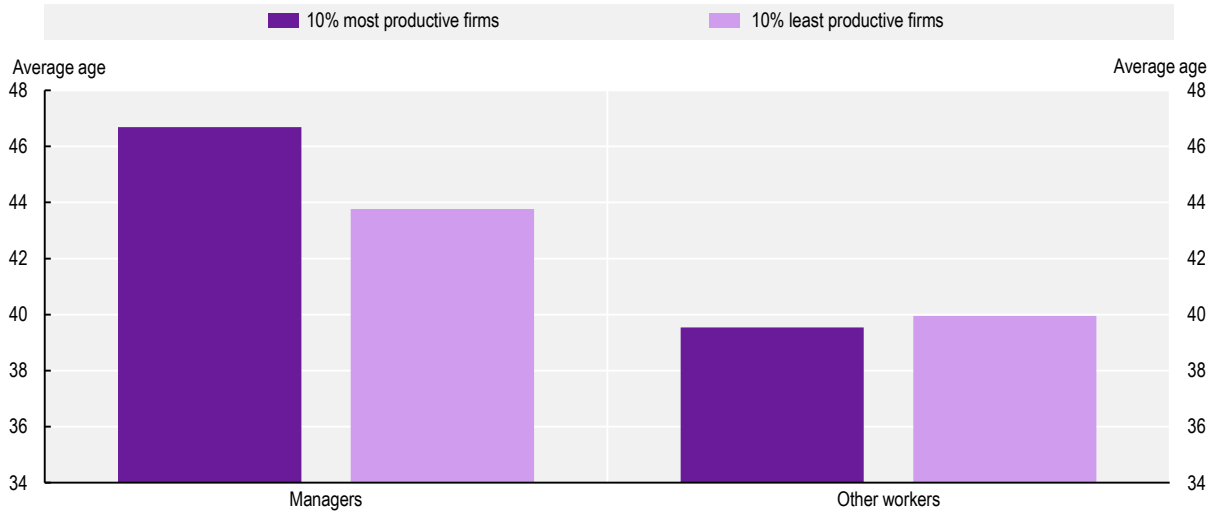
Figure 2.9. Older managers seem more successful at achieving high levels of productivity

Average age in high- versus low-performing firms in Costa Rica and Germany



Note: Labour productivity as well as the age of managers and of other workers are calculated for each firm. For each quintile, they are averaged first across firms within each industry, then across industries and finally across countries. The data refer to 2017 for Costa Rica and 2016 for Germany.
Source: OECD calculations using linked employer-employee datasets for Costa Rica and Germany.

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The benefits of greater general work experience of older workers for their co-workers

The sharing of general work experience is the other channel, besides lower worker turnover and stronger management expertise, through which productivity spillovers from older workers to young co-workers can create mutually beneficial synergies that lift the performance of firms in which young and old work together. This finding emerges from estimations of the effect on the productivity of incumbent workers, as reflected in their wage, following the recruitment of an older worker to their team. The analysis is conducted at the worker level and regresses the wage change of incumbent workers on the share of persons aged 50 and over who have been newly hired, while controlling for standard observable characteristics.[10] In contrast to the regressions above, which established generally positive synergies between young and older workers (but were not suited to determine the direction of the spillovers), this setup focuses on spillovers from older to young workers. Using wages as a proxy for the (unobserved) productivity of the individual worker is a common assumption. As this section and Box 2.1 have shown, wages and productivity are highly positively correlated, and complementarities between young and older workers are reflected in greater productivity and higher wages.

Productivity, as reflected in the wage, of incumbent workers rises more strongly for a team that hires older workers. The analysis focuses on the three years following the move. The effect of recruiting older workers is positive for all three age groups, and it is strongest for younger co-workers, indicating that they receive valuable spillovers from newly hired, experienced staff (Figure 2.10). The estimated effect is relatively small: hiring a 50+ worker to a team of nine workers raises the productivity of young co-workers that is reflected in a wage boost of approximately 1% of their annual wage in total over the three years following the hiring. This result underlines the complementarity of skills and knowledge between workers of different ages and benefits of being in a team with colleagues who have greater general work experience. It holds on average across countries and firms, while there can be country- and sector-specific circumstances in which older workers weaken the performance of younger workers – see a study on US state supreme court judges (Ash and MacLeod, 2020[32]).

Tailoring support for workers of different ages and strengthening collaboration between generations

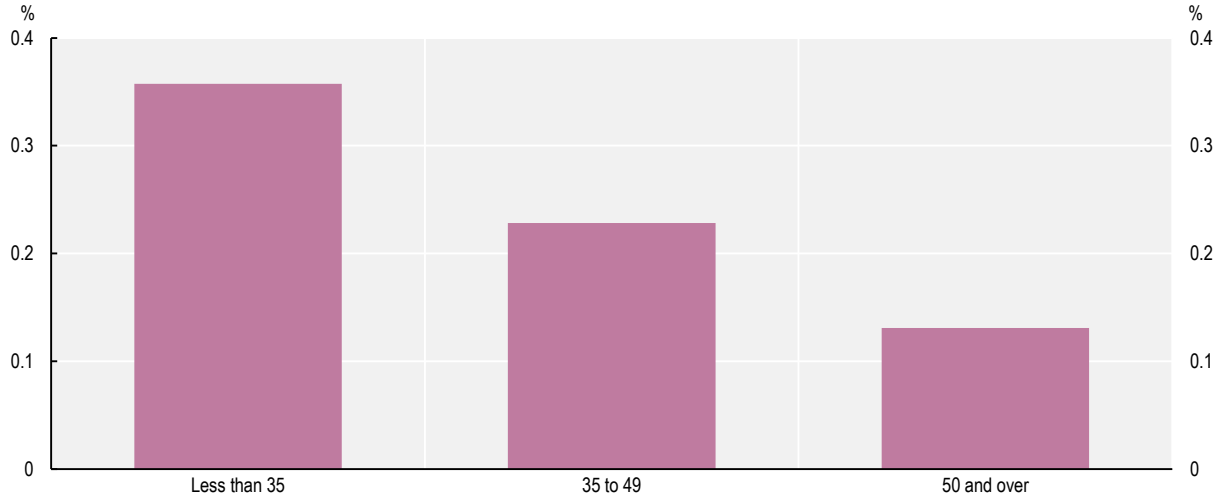
The analysis in this chapter has shown that greater age diversity is not detrimental to firm performance. It has also shown that there are a number of pathways by which greater age diversity can increase productivity. Reaping these benefits requires putting in place the right support for strengthening collaboration between generations.

Businesses are increasingly aware of the positive potential that an age-diverse workforce has for firm performance. According to the AARP Global Employer Survey 2020, 83% of employers state that it would be very or at least somewhat valuable to their organisation's success and growth to create a more multigenerational workforce. Executives in large global companies recognise that their organisation would need to undertake more efforts to maximise the full potential that an age-diverse workforce offers, listing age, besides disability, as the area of diversity management that requires most improvement (Forbes Insights, 2011[33]).

Understanding the attitudes and needs of workers at different ages who collaborate in the workplace is the basis for putting the right policies in place to harvest the business benefits of a multigenerational workforce.

Figure 2.10. Having a 50+ worker in the team is associated with increased productivity of co-workers

Percentage change in incumbent workers' wage when 10% of the team are made up of newly hired 50+ workers for Austria, Estonia, Italy, Portugal and Spain



Note: The estimations regress the log difference in the wage for the three years following the move on the hiring rate of 50+ workers, the lagged log difference in the wage, standard observable characteristics for the worker and firm (including employment growth to control for the positive correlation between employment growth and productivity growth), worker fixed effects and interacted industry-year fixed effects. Regressions are run for each country and year separately and results are then averaged across countries and years. Team refers to the whole firm for firms with up to 100 employees and all workers in the same occupational group for firms with more than 100 employees. Annex 2.A provides further details on the regression results, including statistical significance.
Source: OECD calculations using linked employer-employee datasets for Austria, Estonia, Italy, Portugal and Spain.

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Understanding the attitudes and needs of a multigenerational workforce

People at different stages of their working life have different needs. Young workers need to build up a diverse set of work experience to develop work-related skills. Parents with young children and people with frail family members are in need of flexible working times to accommodate work with family responsibilities. People re-joining the workforce after a long period of absence may need to update their skills set, while those close to retirement may wish to work part-time to phase into retirement.

Several studies in the management literature claim that there are generational differences in work attitudes and needs (Lyons et al., 2015[34]). For example, based on employee data from Australia, China, Germany, Singapore and the United States, Cogin (2012[35]) finds significant differences in work attitudes between generations, even after controlling for differences in life stage. The most important work value is "hard work" for Traditionalists and Baby Boomers, "asceticism" for Generation X and "leisure" for Generation Y. These apparent differences in work attitudes and needs are often reflected in generational stereotyping of the kind summarised in Table 2.1. They could be a source of tension at work, as a result of conflicting work-related values, feelings of unequal treatment by management, unfulfilled career expectations, obstacles to collaboration and reduced knowledge transfer.

Table 2.1. Stereotypes on differences in work attitudes and needs between generations

Generation	Time frame	Characterised as
Traditionalists	Born before 1945	Conservative, dedicated, team-workers, collaborative
Baby Boomers	Born between 1946-1964	Workaholics, loyal, competitive, materialistic
Generation X	Born between 1965-1980	Looking for good work-life balance, question authority, flexible, job hoppers
Generation Y / Millennials	Born between 1981-2000	Technology-savvy, team players, multi-taskers, "work hard, play hard" mentality
Generation Z	Born between 2001-2020	Technology-centric, individualists, creative, diversity focused, risk-averse

Note: The indicated time frame is suggestive and may vary across countries as, for example, the baby boom period is different by some years from one country to the other.
Source: Adapted from Gaidhani, Arora and Sharma (2019[36]), "Understanding the attitude of Generation Z towards workplace", Singh (2014[37]), "'We are not phobic but selective': The older generation's attitude towards using technology in workplace communications", http://dx.doi.org/10.1108/dlo-10-2013-0082 and Tolbize (2008[38]), *Generational differences in the workplace*.

However, the evidence on substantial differences in work attitudes between generations is thin. In a meta-study on three workplace-related outcomes (organisational commitment, turnover intention and job satisfaction), Costanza et al. (2012[39]) find few, if any, differences between workers from different cohorts, which leads them to conclude that there are no systematic, substantive differences among generations. Similarly, Becton, Walker and Jones-Farmer (2014[40]) find that a person's generation has a limited effect on workplace behaviour and that stereotypes are overstated.

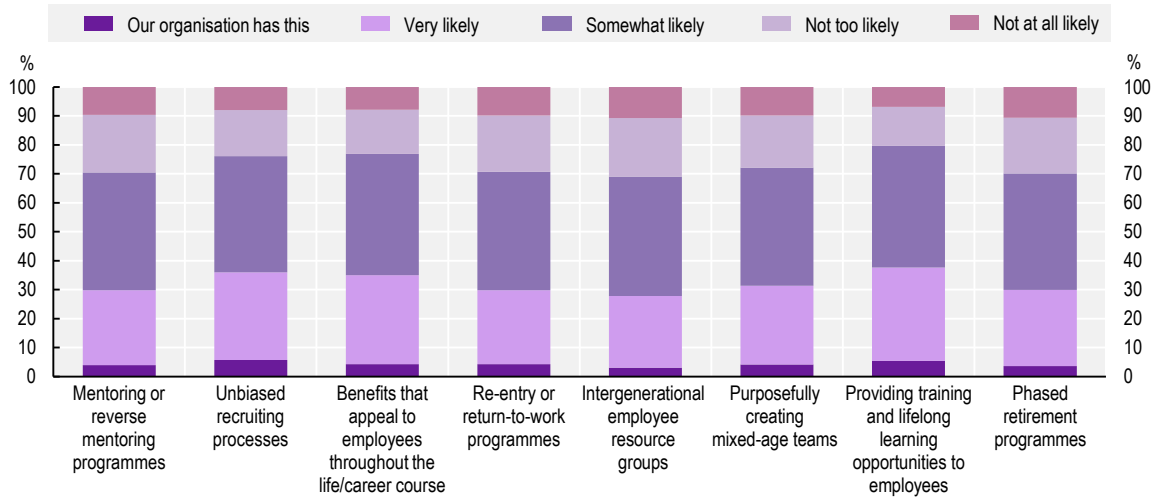
Setting generation-specific policies may therefore not be the best way to design policies (Costanza and Finkelstein, 2015[41]). Instead, it is the life stage of each individual employee that determines the needs and is the more useful construct when considering how to best manage employees (Smeaton and Parry, 2018[42]). The differences in needs of employees at different life stages would seem to suggest tailoring employment practices and policies to certain age groups. Yet, age is an imperfect indicator for life stage or individual needs, as work-life patterns are becoming more fluid. Rising longevity in particular pushes all generations from a three-stage life of distinct periods of education, work and retirement to a multi-stage, non-linear life in which key events occur more frequently across one's life. It will therefore be necessary to define policies in an age-inclusive way, so that people at different stages of their life (whatever their age) can contribute their full potential at the workplace for maximum business success.

How ready are employers to embrace a multigenerational workforce?

There is much that employers can do to foster collaboration between different generations to achieve positive business outcomes and good working relationships among employees (see Chapters 3, 4 and 5). Currently, however, few employers have policies in place that support a multigenerational workforce. This applies in all policy dimensions: from supporting mobilisation and management of a multigenerational workforce to making jobs attractive at all life stages and keeping skills up-to-date for a long and productive career. According to the AARP Global Employer Survey 2020, in no policy area have more than 6% of employers implemented policies that are targeted at supporting a multigenerational workforce, such as unbiased recruiting processes and return-to-work or phased retirement programmes (Figure 2.11).

Figure 2.11. Employers have few policies in place to support multigenerational workforces but they aim for more

Share of employers that have or would be very, somewhat, not too or not at all likely to implement or explore implementing a specific policy if provided with examples of promising practices



Note: The question asked was: "If provided with examples of promising practices and 'how-to' guides on a multigenerational workforce, how likely are you to implement or explore implementing programmes or strategies in each of the following areas?" Respondents were about 5 900 employers from all OECD countries with the exception of Colombia.
Source: AARP Global Employer Survey 2020.

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One area in which progress has been lacking so far are human resource performance systems. These need to better capture the collective impact of an age-diverse and -inclusive workforce. As this chapter has shown, much of the benefits of age diversity comes from spillovers or the mix of ages, with employees collaborating and complementing and learning from each other. Yet, current human resource systems fall short in two ways: they tend to incentivise individual contributions rather than capturing the productivity and collective impact of an age-diverse workforce; and they might even stifle productivity by discouraging collaboration, while encouraging internal competition.

The good news is that many companies are willing to do more. At least two-thirds of employers indicate that they would be very or at least somewhat likely to implement or explore implementing specific multigenerational workforce policies if they were provided with examples of promising practices (Perron, 2020[43]). This highlights the still large gap between intentions and reality when it comes to age-inclusive policies. The following chapters review employer policies and best practices to support building, managing and benefiting from a multigenerational workforce.

Key takeaways

- Understanding the effects of ageing and age diversity for business performance is important, especially in the context where in the 2000s productivity growth of many countries has declined to unprecedented lows.
- The existing empirical literature has several limitations. Studies have either been conducted at a very aggregate level, without investigating how age diversity affects the individual firm, or only focused on a single country. They have also left mutually beneficial synergies between workers of different ages mostly unexplored.
- This chapter has the unique advantage that it uses high-quality linked employer-employee micro-data for ten different countries. These internationally comparable data bring together firm-level information on productivity with worker-level information on age. They tend to cover all firms and workers which, together with the multi-country coverage, ensures that results are general.
- The new analysis suggests that, when compositional differences between firms are taken into account, older workers do not drag down overall firm productivity. The productivity of the average worker increases from labour market entry to prime age and is then stable until retirement.
- Older workers are shown to be particularly valuable to their firm because they generate spillover effects that improve the productivity of their younger co-workers and therefore of the firm. These spillover effects have their roots in older workers' lower job turnover, their greater management experience and their greater general work experience.
- Firms are starting to recognise the potentially positive effects of greater age diversity, as ageing increasingly challenges traditional human resource practices. But, to be ahead of the curve, they need to do more to reap these benefits, beginning with rejecting simple stereotypical views about the unique attitudes and expectations about work that each generation is said to have.

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Annex 2.A. Detailed regression results

Annex Table 2.A.1. Age diversity and productivity: Main regression results

Change in the outcome variable for Costa Rica, Finland, Germany, Japan and Portugal

Outcome variable	(1) Figure 2.3 (Panel A) Productivity Change (%)	(2) Figure 2.3 (Panel B) Productivity Change (%)	(3) Figure 2.5 Productivity Change (%)	(4) Figure 2.6 Average wage Change (%)	(5) Firm stability results Employee turnover Change (% points)
Key variables:					
Share of <35 (%)	-2.853*** (0.193)	-1.258*** (0.090)	-1.469*** (0.121)	-0.960*** (0.040)	0.149*** (0.013)
Share of 50+ (%)	-1.874*** (0.111)	0.052 (0.082)	-0.159 (0.124)	-0.025 (0.046)	0.035*** (0.005)
Share of <35 (%) × Share of 50+ (%)	-	-	0.014*** (0.004)	0.004* (0.002)	-0.005*** (0.001)
Control variables:					
Share of low education (%)	-	-2.914*** (0.131)	-2.918*** (0.131)	-1.060*** (0.029)	0.086*** (0.009)
Share of high education (%)	-	1.106*** (0.067)	1.107*** (0.067)	0.654*** (0.021)	0.013*** (0.003)
Share of women (%)	-	-1.140*** (0.050)	-1.135*** (0.050)	-0.825*** (0.023)	-0.003 (0.002)
Share of firms with <50 employees (%)	-	-0.939*** (0.026)	-0.938*** (0.026)	-0.189*** (0.010)	-0.004*** (0.001)
Share of firms with 250+ employees (%)	-	0.261*** (0.017)	0.263*** (0.017)	0.195*** (0.007)	-0.011*** (0.002)
Country-industry fixed effects	Yes	Yes	Yes	Yes	Yes
Country-year fixed effects	Yes	Yes	Yes	Yes	Yes
No. of observations	26 613	26 612	26 612	26 612	16 717
No. of clusters	630	630	630	630	510
R^2	0.989	0.995	0.995	0.998	0.961

Note: The omitted categories are: share of 35-49, share of middle education, share of men and share of firms with 50-249 employees. The regressions are estimated using OLS with log values for productivity and average wage. Standard errors, which are shown in brackets, are clustered at the country-industry-decile level. *** indicates statistical significance at the 1% level, ** at the 5% level and * at the 10% level.
Source: OECD calculations using linked employer-employee datasets for Costa Rica, Finland, Germany, Japan (not (5)) and Portugal.

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Annex Table 2.A.2. Age diversity and productivity: Regression results underlying Figure 2.10

Change in the wage of incumbent workers for Austria, Estonia, Italy, Portugal and Spain

	(1) Austria Wage change Add. increase (%)	(2) Estonia Wage change Add. increase (%)	(3) Italy Wage change Add. increase (%)	(4) Portugal Wage change Add. increase (%)	(5) Spain Wage change Add. increase (%)
Effect on the <35:					
Hiring rate of 50+ (%) Effect in year 1	2.76*** (0.47)	7.17*** (1.81)	1.24* (0.68)	-0.01 (2.61)	7.69*** (2.72)
Hiring rate of 50+ (%) Cumulative effect in year 2	2.01*** (0.55)	5.84*** (2.22)	-0.90 (0.76)	2.95 (2.71)	8.26*** (3.04)
Hiring rate of 50+ (%) Cumulative effect in year 3	1.28** (0.63)	5.25** (2.50)	-1.04 (1.09)	2.27 (2.86)	8.84** (4.22)
Average over the 3 years	2.02	6.09	-0.23	1.74	8.26
Effect on the 35-49:					
Hiring rate of 50+ (%) Effect in year 1	2.13*** (0.25)	4.93*** (1.06)	-0.27 (0.42)	-1.36 (0.89)	0.18 (1.50)
Hiring rate of 50+ (%) Cumulative effect in year 2	2.01*** (0.30)	4.75*** (1.30)	0.44 (0.47)	0.84 (0.93)	5.13*** (1.69)
Hiring rate of 50+ (%) Cumulative effect in year 3	1.76*** (0.34)	5.20*** (1.47)	0.40 (0.68)	1.74* (0.99)	6.37*** (2.37)
Average over the 3 years	1.97	4.96	0.19	0.41	3.89
Effect on the 50+:					
Hiring rate of 50+ (%) Effect in year 1	1.54*** (0.32)	3.49*** (0.93)	0.36 (0.61)	-1.86 (1.10)	1.85 (1.83)
Hiring rate of 50+ (%) Cumulative effect in year 2	1.70*** (0.37)	3.45*** (1.15)	0.74 (0.68)	0.38 (1.15)	3.55* (2.05)
Hiring rate of 50+ (%) Cumulative effect in year 3	1.10** (0.43)	2.82** (1.30)	-3.27*** (0.98)	-1.04 (1.22)	4.84* (2.87)
Average over the 3 years	1.45	3.25	-0.73	-0.84	3.41
A long list of standard control variables	Yes	Yes	Yes	Yes	Yes
Worker fixed effects	Yes	Yes	Yes	Yes	Yes
Industry-year fixed effects	Yes	Yes	Yes	Yes	Yes
No. of observations	7 295 310	1 276 252	7 635 305	5 497 957	1 523 877

Note: The regressions are estimated using OLS with log values for wage. A single regression is run to estimate the effect for each year jointly for the three incumbent age groups in the team. The estimates display the effect on incumbent workers in the team, when the hiring rate of 50+ increases (theoretically) from 0% to 100%. The values in Figure 2.10 average the estimates across countries for a 10 percentage point increase in the hiring rate. Standard errors, which are shown in brackets, are clustered at the team level. Team refers to the whole firm for firms with up to 100 employees and all workers in the same occupational group for firms with more than 100 employees. *** indicates statistical significance at the 1% level, ** at the 5% level and * at the 10% level.
Source: OECD calculations using linked employer-employee datasets for Austria, Estonia, Italy, Portugal and Spain.

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Notes

[1] The chapter relies on contributions from Alonso Alfaro Ureña, Catalina Sandoval Alvarado and Evelyn Muñoz (Costa Rica, Central Bank of Costa Rica), Peter Gal and Timo Leidecker (Portugal, OECD), Alfred Garloff (Germany, German Federal Ministry for Economic Affairs and Energy, formerly IAB Nuremberg), Ryo Kambayashi (Japan, Hitotsubashi University), Balázs Muraközy (Hungary, University of Liverpool) and Satu Nurmi (Finland, VATT).

[2] Studies based solely on worker-level data to determine the evolution of productivity over the lifecycle are rare. In very few and specific situations, it is possible to observe the output attributable to one individual worker. This approach also comes with the downside that, by measuring a person's productivity, it neglects the potential positive effects that, for example, experienced workers may have for the productivity of their less experienced co-workers. One finding from such empirical analysis is that physical productivity may peak, and possibly decline, earlier than cognitive abilities (van Ours, 2009[46]).

[3] Linked employer-employee data, which also have productivity statistics for firms, are often hard to access for confidentiality reasons, especially when the objective is to access data for several countries at the same time. The OECD has partnerships with collaborators who help assemble such data in a comparative way for the countries for which it is possible.

[4] The regression analysis is based on so-called "semi-aggregated" data, which average values for each decile by industry for the years available in the dataset. The micro-data are not simultaneously available for all countries due to confidentiality. The estimation also includes, for each country, year and industry fixed effects to control for year-to-year fluctuations and industry-to-industry differences in productivity that are common across firms. Hungary is not included in this analysis, as no detailed decile data at the industry level are available.

[5] Additional investigations (not displayed) reveal statistically significant, positive synergies also between middle-aged and older workers, to a somewhat smaller degree than the positive synergies between young and older workers.

[6] The hypothesised 10% increase in the share of older workers serves as an illustrative example. It is not to be viewed as a target or aspiration. The estimate is linear so that, for instance, it would double for a 20% increase in the share of older workers.

[7] The average shares of persons aged less than 35 and those 50 and over are 22.4% and 22.3%. A 10% increase in the share of persons aged 50 and over is 2.23%. With the assumption that the shares of people aged less than 35 and those 35-49 decline by an amount proportional to their average size, the share of persons aged less than 35 declines by 0.64%. The estimate due to older workers being more productive than other employees on average is then $0.6\% = (-0.64\%) \times (-1.469) + 2.23\% \times (-0.159)$. The estimate stemming from productivity-enhancing complementarities between young and older employees is $0.5\% = (-0.64\%) \times 22.3\% \times 0.014 + 2.23\% \times 22.4\% \times 0.014$. These calculations use the regression coefficients in Column 3 of Annex Table 2.A.1 in Annex 2.A.

[8] The analysis measures worker turnover in excess terms, i.e. worker flows that do not result in changes to firm employment (Davis, Haltiwanger and Schuh, 1996[44]).

[9] The average shares of persons aged less than 35 and those 50 and over are 22.4% and 22.3%. A 10% increase in the share of persons aged 50 and over is 2.23%. With the assumption that the shares of people aged less than 35 and those 35-49 decline by an amount proportional to their average size, the share of persons aged less than 35 declines by 0.64%. The estimate due to older workers having a lower turnover than other employees on average is then -0.02 = (-0.64%) × 0.149 + 2.23% × 0.035. The estimate thanks to complementarities between young and older employees is -0.16 = (-0.64%) × 22.3% × (-0.005) + 2.23% × 22.4% × (-0.005). Their sum -0.18 is 4% of the average worker turnover of 4.34%. These calculations use the regression coefficients in Column 5 of Annex Table 2.A.1 in Annex 2.A.

[10] The approach follows Cornelissen, Dustmann and Schönberg (2017[45]) and Iranzo, Schivardi and Tosetti (2008[47]). As it requires data that follow the same worker for several years, the sample of countries (Austria, Estonia, Italy, Portugal and Spain) differs to that in the other sections.

3 Mobilising and managing a multigenerational workforce

Population ageing brings older workers more and more to the centre stage. Drawing talent from workers of all generations will be critical in meeting different business needs and skill priorities. Access to a large pool of skills and talent can also help firms to better cope and respond during difficult times. Yet many factors can stand in the way of acquiring and keeping the talent that is needed. This chapter discusses key barriers to fully age-inclusive workplaces, including ageism, and puts forward all-inclusive recruitment and retention policies to better integrate even more generations than in the past.

Infographic 3.1. Key facts: Attracting and retaining talent at all ages

Challenges in recruitment

Across the OECD, the hiring rate for older workers is half that for younger workers

Age discrimination remains common

Age is more often the reason for discrimination for older compared to younger discriminated workers.

Diversity and inclusion strategies

But only about 6% report concrete steps such as unbiased recruiting processes.

Training on management practices

Only 42% of employers offer managers training on management practices. Targeting line managers is more effective in reducing prejudice.

Retention policies

Retention can be a true cost-saver

Flexible work/retirement options increase retention

How age-inclusive are labour markets today?

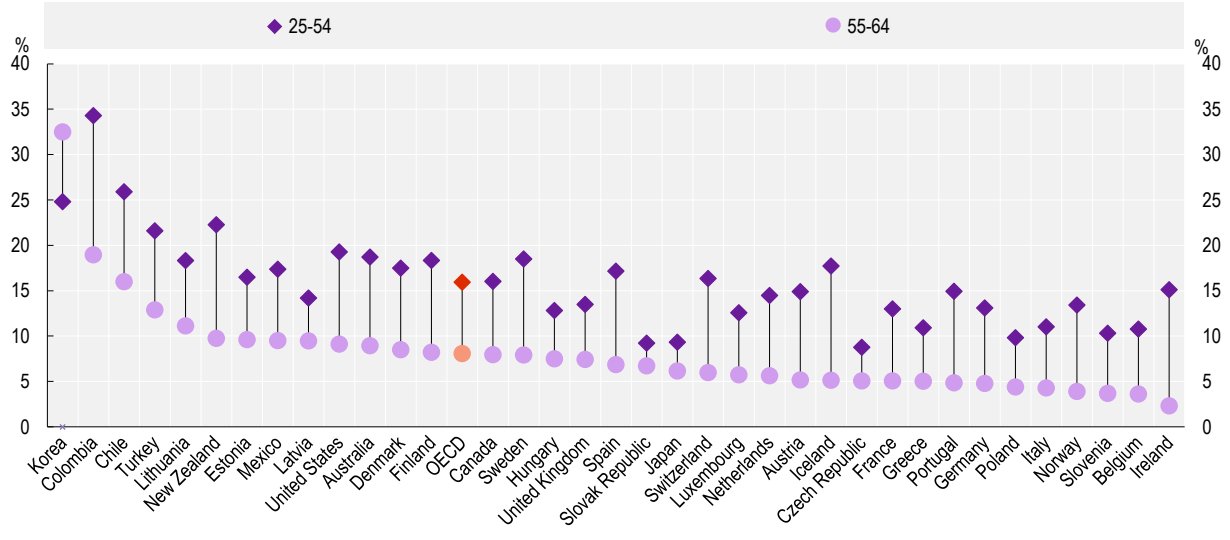
According to the 2015 Talent Management Study by the Boston College Center on Aging & Work, the estimated effort spent on recruitment practices by employers was greater than other dimensions of creation and management of a high-quality workforce, such as training and development or flexible work options.[1] In spite these efforts, many employers struggle to create an age-diverse workforce.

Large differences in hiring rates across age groups indicate that younger and older workers are often considered differently, even though employment prospects of older workers have improved significantly in recent years (as shown in Chapter 1). Across OECD countries, less than one in ten employees in the 55-64 age group are new hires. Hiring rates for workers aged 25-54 are much higher, averaging about one in six workers across the OECD (Figure 3.1). In other words, even employers with significant numbers of older workers among their workforce do not actively hire them.

Lower hiring rates beyond age 55 may reflect employers' reservations towards hiring older workers but may also reflect older workers' preferences for fewer job changes driven by settled family environment and stable life circumstances. The relatively low unemployment rates among older people seem to support the "preferences" view but should not be taken at face value. Older workers who lose their job often face considerable difficulties finding a new job. At 38%, the incidence of long-term unemployment (persons unemployed for one year or longer as a proportion of total unemployment) among 55-64 year-olds in 2019 was more than double of 15-24 year-olds. Moreover, older workers are more likely to leave the labour force altogether rather than remaining among the unemployed – and this is not always voluntary. In many countries, seniors make up a large share of discouraged jobseekers, i.e. people that are not actively searching for a job because of labour market reasons such as the past failure in finding a job (ILOSTAT, 2018[1]).

Figure 3.1. Hiring rates decline with age across the OECD

Share of workers with job tenure of less than one year as a percentage of total employed, by age group in 2019



Note: OECD is an unweighted average and excludes Israel. Data refer to 2017 for Iceland Japan and to 2018 for the United States. Data for Korea and the United States cover employees only.
Source: OECD *Job Tenure Database*, https://stats.oecd.org/Index.aspx?DataSetCode=TENURE_FREQ.

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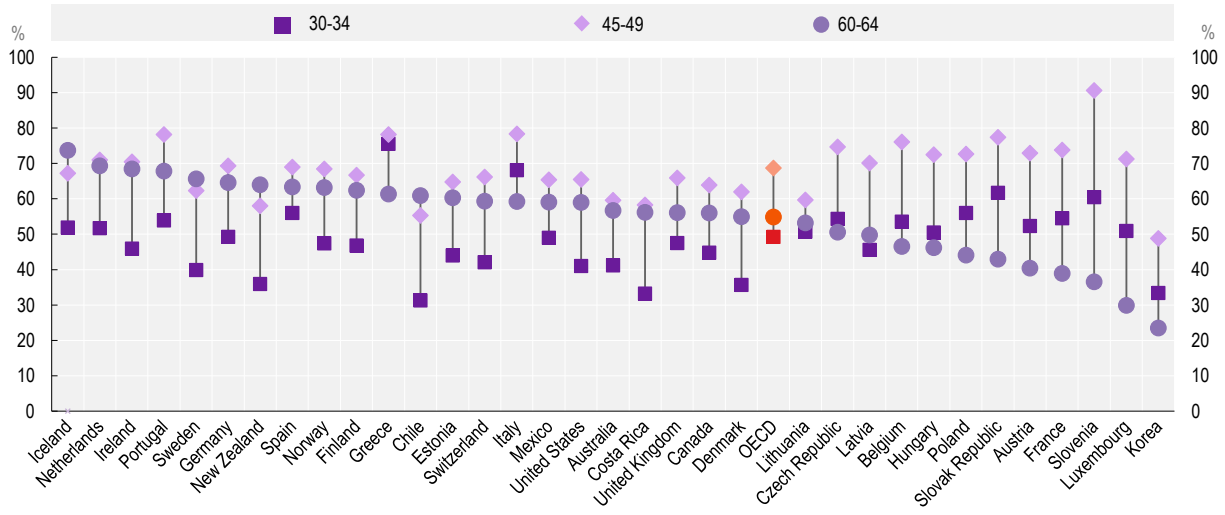
The capability to retain employees in the company is the other side of successful recruitment strategies. Acquiring company-specific skills is costly and takes time. Long-standing employees carry valuable company-specific human capital and can set the basis for integrating new hires. Therefore, older workers play a key role as they are far less likely to voluntarily move to other companies than their younger counterparts. Of course, long careers in the same company can also carry the risk that inefficient routines become deeply entrenched and work methodologies outdated. The first-best strategy to overcome this risk, however, is not higher turnover but effective employer policies to foster a life-long-learning culture as Chapter 5 of this report shows.

Despite low voluntary job change of older workers to other companies, the overall retention rate (as measured by the share of employees that remains more than five years in the same company) declines with age after reaching its peak at around 45-49 years old (Figure 3.2). On average, across the OECD, just over half of working 55-59 year-olds leave the workplace by the time they are 60-64. On one hand, early withdrawal from the labour market can be attributed to the use of early retirement schemes. Indeed, retention rates are the lowest in countries where disincentives in the welfare systems make it less worthwhile for older workers to continue in the labour market (e.g. Korea and Luxembourg). On the other firms might fear low returns from training older workers, because of age-related stereotypes and shorter time to retirement thereby reducing their employability.

Figure 3.2. Retention of workers towards the end of their career is a major challenge

Share of workers in 2014 that remained with the same employer (or self-employed) in the five-year period afterwards (until 2019), by age group: 30-34, 45-49 and 60-64 years (2019)



Note: OECD is an unweighted average excluding Colombia, Israel, Japan and Turkey for which data are not available. Data refer to 2017 for Australia and to 2018 Greece, Latvia, Norway and the United States. Data cover employees only for Korea and the United States. Costa Rica is shown but is not yet a member country and hence, not included in the OECD average.
Source: OECD calculations based on *OECD Job Tenure Database*, http://stats.oecd.org//Index.aspx?QueryId=9590.

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A range of other factors can also result in lower hiring and retention of older workers. In some countries, e.g. Korea and Japan, employment practices such as seniority pay schedules together with rigid labour market regulations can hinder recruitment of older workers (Box 3.1). Above all, stubborn and negative attitudes towards older workers remain a prime barrier. Overall, public policy interventions are critical to set the right incentives and framework for fostering age-inclusive workforces. However, most recruitment policies are in the hands of employers as discussed below.

Box 3.1. Did you know?

Seniority wages and government legislation can sometimes hinder hiring and retention at older ages

Public policies set the legal boundaries that employers have to respect in the recruitment process. But they can also set crucial incentives for prolonging working lives, changing jobs or (re-)entering the labour force at older ages.

In some countries, seniority wages are still a common approach to compensate employees, although this practice has decreased overall. In such schemes, a wage rises automatically with the length of tenure and unrelated to performance evaluations. Keeping an older employee may thus be an important cost-driver for employers, discouraging the retention of older workers. On average in the OECD, ten additional years of job tenure (i.e. length of time spent in the job with the same employer) increase wages by nearly 6% and in Germany, Japan, Turkey and Korea by even more than 10% (OECD, 2019[2]).

Strong tenure-pay policies incentivise firms to set a mandatory retirement age upon which the employment contract automatically ends. The age often coincides with the statutory pension age. In a few cases, including Finland, France and Poland, ending the contract is also a legal precondition for claiming a full public pension. Upon termination, employers can then re-hire the same worker albeit on a new contract with substantially lower labour costs. In some cases, this may be in line with the employee's wish for reduced working hours close to retirement. However, in general, the process carries the risk that a new contract comes at the expense of poorer working conditions including lower pay, demotion and inefficient use of skills leading to deterioration of worker-well-being and productivity. Increasingly, countries are prohibiting mandatory retirement ages through anti-discrimination laws (OECD, 2019[2]).

Age-specific employment protection legislation which sets the rules for hiring and firing workers in countries can also undermine employers' willingness to hire older workers and encourage them to make use of mandatory retirement and early retirement provisions as a means for ending long-term employment contracts that may be difficult to terminate. Today, very few OECD countries have explicit age-specific employment protection measures but in many, laying off older workers can be administratively more complex (e.g. because notice periods increase with tenure) or create significant additional costs for employers in the form of higher severance pay. Some country experience demonstrates that by avoiding overly strict employment protection legislation for permanent contracts whilst seeking to strengthening income and (re-)employment support for workers who do become unemployed can be effective ways to safeguard the interests of workers without hurting their employment prospects (OECD, 2014[3]).

Age-inclusive recruitment processes for a multigenerational workforce

Ageism is a key barrier in creating an age-inclusive workforce

Discrimination and negative employer attitudes towards certain age groups of workers are obstacles to long and productive working lives. Older workers are often perceived as experienced and wise but also as less adaptive and having outdated skills. Younger workers are deemed dynamic and high skilled but are believed to lack leadership ability. Age-related stereotypes can thus be positive or negative but, in fact, negative stereotypes have much larger effects on behaviour than positive ones (Meisner, 2011[4]). This is detrimental to productivity and economic growth by limiting the available pool of talent and experience in

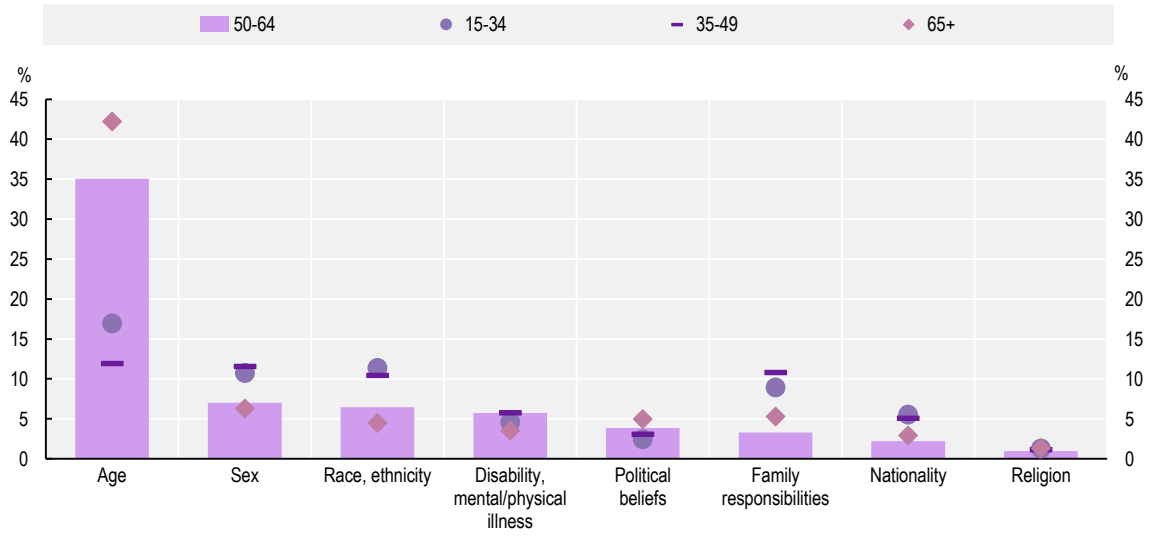
the workforce. For instance, according to a study by AARP, age discrimination against workers age 50 and older cost the US economy USD 850 billion in 2018 (AARP, 2020[5]).

In nearly all OECD countries, employers are bound by legislation that prohibits explicit age discrimination in the form of firing or refraining from hiring someone due to age. But, the effectiveness of laws against age discrimination in the workplace is hampered by difficulties in proving that discrimination takes place, as well as cost and procedural barriers to bringing a case before courts (OECD, 2019[2]). Hence, removing ageist provisions from legal and regulatory frameworks is insufficient to effectively tackle internalised ageist attitudes and practices in the labour market (UNECE, 2019[6]).

Indeed, discrimination with regard to work is a considerable problem: according to International Survey of Social Survey Programme, 15% of respondents across 28 countries report to having been discriminated against with regard to their work within the last five years; for example when applying for a job or not being considered for a promotion. Among those feeling discriminated, age was by far the most common reason (Figure 3.3). Age discrimination is experienced by both younger and older workers but older workers are more likely to report complaints around ageism; 42% of those aged 65 and above compared to less than 20% for the age groups 15-34 and 35-49. Further evidence suggests that older workers are less likely to receive a job offer even if they have equal qualifications (Ahmed, Andersson and Hammarstedt, 2012[7]). This may be a sign of discrimination and biases that inhibit the efficiency of the hiring process. Moreover, field experiments find that in the hiring process older women are more prone to be discriminated for their age than older men, on top of prevalent gender discrimination independent of age (Neumark, Burn and Button, 2019[8]).

Figure 3.3. Age is the most common reason for work-related discrimination

People that report to be discriminated in relation to work by reason of discrimination as a share of all people reporting to be discriminated in relation to work within the last five years, by age group in 2015



Note: The countries included are: Australia, Austria, Belgium, Chile, the Czech Republic, Estonia, Finland, France, Germany, Hungary, Iceland, Israel, Japan, Latvia, Lithuania, Mexico, New Zealand, Norway, Poland, the Slovak Republic, Slovenia, South Africa, Spain, Sweden, Switzerland, Taiwan, the United Kingdom and the United States. One part of people reporting to be discriminated chose the response "other reason" as they were not able to categorise themselves in one of the other given response categories. These were 38%, 40%, 35% and 29% of people for the age groups 15-34, 35-49, 50-64 and 65+ respectively.
Source: OECD calculations based on data from International Social Survey Programme (Work Orientations Module) 2015.

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Most governments in OECD countries have launched a number of ad hoc pro-active initiatives to change employer attitudes and mindsets towards older workers and ageism in general (Box 3.2). These include legislation awareness campaigns, development of "tool kits", promotion of best practices and consultation and co-operation with the social partners (Sonnet, Olsen and Manfredi, 2014[9]). Among European OECD countries with available data, awareness of non-discrimination provisions has increased between 2007 and 2015, yet in the majority of countries more than half of the population would still not know their rights if they were to become a victim of discrimination or harassment (OECD, 2019[2]).

Overall, even though considerable advances have been made to change mindsets, there remains considerable scope to implement more robust systems to prevent age bias in recruitment processes. According to (Perron, 2020[10]) only 6% of employers in OECD countries have implemented concrete policies for unbiased recruitment.

Box 3.2. Public-private campaigns to fight age discrimination, stereotypes and biases

Many governments and international organisations launch public awareness campaigns to fight age discrimination and change employer attitudes about older workers. Campaigns like "Global Campaign to Combat Ageism" by the WHO in 2015 and "Still young or already old at work?" by the Belgium Federal Public Service for Employment, Labour and Social Dialogue in 2012 try to build public knowledge through research reports, TV spots, newspaper ads or websites. Other government programmes collaborate with or directly approach employers as illustrated by the following list of selected programmes (http://www.oecd.org/employment/ageingandemploymentpolicies.htmhttp://www.oecd.org/employment/ageingandemploymentpolicies.htm provides a more complete picture):

- **Vacancies for all ages** financed by the Dutch Government created a checklist for employers how to avoid discrimination in job ads. Since 2005, job ads placed in newspapers or internet are screened for age discrimination and responsible employers are contacted directly to inform about the discriminatory practice and equal treatment legislation. Unlawful ads have been declining over the past decade according to the Netherlands Institute for Human Rights (OECD, 2018[11]).
- **Start-up 50+** is a programme by Aegon in the Netherlands and Poland in collaboration with the Leyden Academy on Vitality and Ageing, the Medical University of Lodz and EIT Health and co-financed by the European Commission. It targets people aged 50 or older to foster entrepreneurship in an eight-week training course with individual coaches. The course evaluation by participants was very positive: 96% were satisfied and 89% would recommend it to others.
- **YES (Youth Employment Service)** is a programme by Investec and other private-sector companies in collaboration with the South African Government. Since 2018, it offers opportunities for young workers to find a first job in an economy that suffers from high youth unemployment (57% for the age group 15-24 in 2019 according to the OECD Employment Database). By May 2020, 35 000 young adults found an initially temporary job of which 1 440 were at Investec where about 50% of jobs turned permanent after the end of the programme.

Diversity and inclusion practices need to move beyond "tokenism"

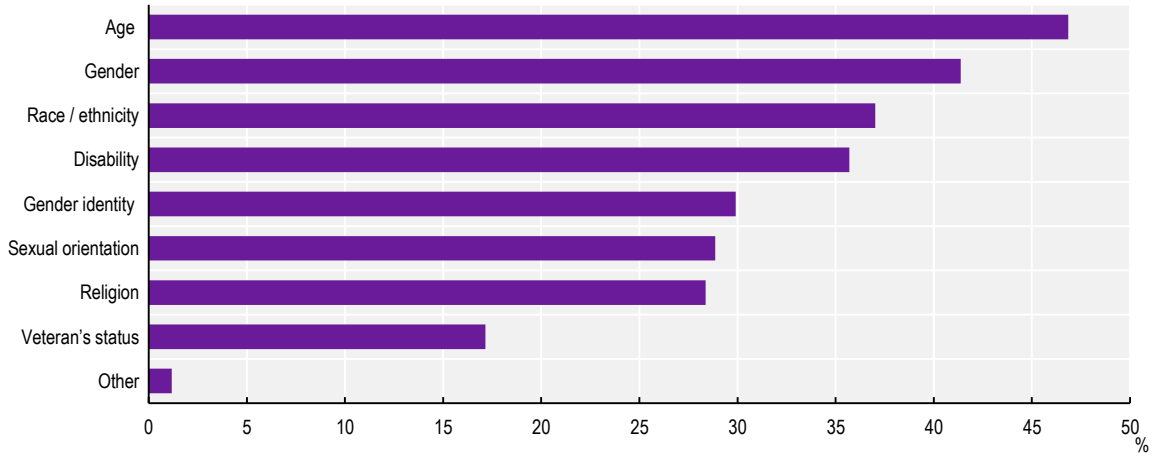
In view of labour shortages and demographic change, diversity and inclusion strategies have gained importance as a way to recruit and retain suitable workers. For many firms, they are also a way to overcome ageism by defining an all-inclusive corporate culture. According to the AARP 2020 Global Employer Survey among 6 000 employers, eight in ten large employers have a diversity and inclusion (D&I) strategy with

some employers tying diversity to company performance (Box 3.3). Among small and medium-sized enterprises,[2] only every second employer has a D&I strategy while one in three consider to be too small to have one. These strategies express organisational culture and values of a firm and are strongly guided by the legal and cultural environment the company operates in (Lee and Kramer, 2016[12]).

According to the AARP survey of employers, one in two employers have a D&I strategy that includes age as an explicit facet – more than for any other dimension of diversity (Figure 3.4). While age inclusion is a positive development, creating a D&I strategy alone is not sufficient for ensuring inclusiveness at the workplace. For instance, many companies and public administrations continue to practice mandatory retirement policies which hinder employment prospects at older ages. Furthermore, the same survey revealed that concrete policies to help creating a multigenerational workforce, like unbiased recruitment processes, phased retirement programmes or lifelong-learning opportunities, are hardly adopted by employers (about 5%). Lack of knowledge and evidence may drive the gap between rhetoric and actual practices as many employers do express their willingness to implement measures if provided with the right information (Chapter 2). Overall, research suggests that the impact of implicit or subconscious biases on hiring outcomes is harder to eradicate by means of written policies (Smeaton and Parry, 2018[13]).

Figure 3.4. Age is the most common dimension of Diversity & Inclusion strategies

Share of employers with a Diversity & Inclusion strategy by diversity component that includes the dimension of age/gender/race/ethnicity/disability/sexual orientation/gender identity/religion/veteran's status/other in their Diversity & Inclusion strategy



Note: AARP Global Employer Survey 2020 interviewed around 6 000 employers from all OECD countries except Colombia.
Source: AARP Global Employer Survey 2020.

StatLink https://stat.link/pis4nv

Box 3.3. PNC Bank's diversity strategy to attract talents for a long and productive career

PNC is a financial services provider mostly operating in the United States. Diversity and inclusion is a major focus at PNC and is tied to business outcomes and fully embedded at every level of the organisation. Developing a talented and diverse workforce is recognised as critical for being competitive, spurring innovation and enhancing profitability. PNC installed several measures to make their strive for diversity and inclusion a reality:

- Corporate Diversity Council: chaired by its CEO and supported by 22 senior executives who represent every line of business across the company. Council members serve three-year terms, after which they rotate off the council to ensure that the group's ideas and strategies remain fresh and innovative.
- Leadership workshop *Raising the Bar on Talent*: It requires managers of people to not only perform the business aspects of their jobs but also to develop skills to hire, train, and develop a diverse workforce.
- 12 Lines of Business Diversity and Inclusion Councils: These include audit, business banking, customer care, risk management, and technology, among others. These councils are charged with finding ways to integrate diversity and inclusion into their specific business areas.

Source: AARP (2016[14]), "Disrupting Aging in the Workplace: Profiles in Intergenerational Diversity Leadership", https://www.aarp.org/ppi/info-2016/disrupting-ageing-in-the-workplace.html.

Eliminating age bias in recruitment

Age discrimination and stereotypes can hinder the hiring process at several stages. It starts at the very beginning of the hiring process: for instance, the wording and imagery used in advertisements and job descriptions can influence who applies for a role. Job advertisements can also exclude potential applicants through requesting "essential qualifications". This is well intended and makes the hiring process more efficient. However, focusing as much as possible on transferable skills and experience, and specifying that equivalent qualifications are also acceptable avoids unnecessarily losing qualified applicants (Centre for Ageing Better, 2018[15]).

"Age-blind" hiring processes, for example curriculums vitae that omit the applicant's date of birth and ask for relevant experience against competencies rather than chronologically, can avoid conscious and unconscious biases in the early stage of the hiring process. The overall effect of age-blind hiring or anonymous job applications on diversity, however, could be counterproductive as anonymisation prevents employers not only from negative but also from positive discrimination (OECD, 2020[16]). For example, (Behaghel, Crépon and Le Barbanchon, 2015[17]), find that immigrants and applicants from deprived neighbourhoods have a lower call-back rate in anonymised hiring processes compared than with standard applications, likely because anonymity prevents employers committed to diversity from favouring minority applicants when credentials are equal. Overall, only 6% of employers that have diversity measures in place use blind job applications (OECD, 2020[16])

Against the difficulty of controlling unconscious bias, use of technology such as a tailored software that screens advertisements for buzzwords with regard to age and other personal characteristics can help diversify the candidate pool by systematically removing the incidence for bias to influence selection. For instance, *Applied* (a recruitment platform) have developed a platform that focuses on making hiring fairer and smarter, and draws on behavioural science, designing out the influence of socio-economic characteristics on the selection process. Their approach uses work-sample based assessments, which are screened and scored blind to develop a more accurate proxy for job performance. They use experimental methods to test the robustness of their methods, and have found that half of those hired would not have reached appointment using previous screening techniques.

Evidence also suggests that age discrimination can take place during the interview process (even though these findings rely overwhelmingly on studies conducted in laboratory settings and are sometimes criticised for artificiality) (Morgeson and Humphrey, 2008[18]). Furthermore, unstructured interviews have been found to be particularly bad predictors of productivity, therefore forming a panel and putting more structure on interviews helps to avoid biases (Smeaton and Parry, 2018[13]). In addition, first interviews can also be partly "blinded" and conducted over the phone to better ensure selection is based on skills and

experience. At least in laboratory studies and a few field experiments, this has been found to be effective against biases (Smeaton and Parry, 2018[13]).

Finally, bias can enter in the post interview phase as demonstrated by Biernat and Fuegen (2001[19]), which found that women are more likely to be shortlisted for a job opening but less likely to ultimately receive a job offer. Research based on 130 interviews with employers revealed that interviewers prefer candidates that are culturally similar to themselves in terms of leisure pursuits, experiences, and self-presentation styles (Rivera, 2012[20]). Under these circumstances concerns about shared culture often even outweigh concerns about productivity.

Strategic workforce planning

Globalisation, demographic change, and new technologies that rapidly transform labour markets make it necessary that employers look well ahead to build a productive and diverse workforce. This is key to respond to crisis situations as much as avoid skills shortages and ensure tapping into a vast pool of skills and talent.

Some large employers engage in advanced tools of strategic workforce planning tools to evaluate the skill set of the current workforce and aim at identifying arising skill needs well in advance to avoid shortages and benefit from early-mover advantages on the labour market. The case of the *Allianz* insurance company highlights how such tools can encourage organisations to frame their thinking about recruitment in terms of talent rather than life stage (Box 3.4).

Box 3.4. Spotlight on strategic workforce planning to recruit and retain workers

Advanced tool at Allianz helps creating a multigenerational workforce

The business environment is constantly evolving and companies need to adapt their workforce to the changing needs to achieve their business goals. Strategic workforce planning (SWP) enables tactical decisions with a long-term focus. It evaluates the skill set of the current workforce and identifies future skill needs well in advance. This allows sufficient time to react to the labour market, avoiding labour shortages before they can arise. Some companies focus on the organisation's primary functions, which contribute most to the organisational results, while overhead and management are of secondary concern.

Some large employers engage in advanced SWP tools. Allianz, for example, runs a tool that integrates employees from all over the world and categorises them according to their skills. SWP at Allianz comprises the following steps:

1. Employees are allocated to talent segments (such as "Risk Management" or "Human Resources Business Partner") which denote distinct skill sets. The entire organisation is divided into over 100 talent segments.
2. Together with the core business functions, human resource management evaluates the supply of skills across talent segments with a five-year planning horizon.
3. Next, the strategic full-time equivalent workforce and skills demands are forecasted across talent segments for the same planning horizon.

4. HR management compares supply and demand to identify gaps. Potential solutions and alternative scenarios to close these gaps are developed and proposed to the executive board. This can be hiring or upskilling within sought-after talent segments, for example, “Data Scientists”. If Allianz foresees a significant risk of failure of the primary solution, for example typically not being the company of choice for data scientists, a secondary solution is put in place. This may consist in upskilling within one talent segment or reskilling across talent segments, for example from “Data Analyst” to “Data Scientist” or from “Claims Handler” to “Claims Standards and Performance Management”.

SWP tools can be integrated with corporate platforms for career development. This allows employees to compare themselves with the skills needed for the position that they may aspire. The platform may also make automated proposals for next career steps including a phased retirement programme. At Allianz 10 000 employees have currently access to such a platform, which is yet not integrated with the SWP tool.

Such an integration would also facilitate identifying and monitoring the career planning of employees with key knowledge for the company to assure knowledge transfer to successors before leaving the organisation. Upon retirement, for example, a phased retirement programme may include one or two days of work a week for knowledge transfer to the next generation.

Tackling stereotypes and discrimination in recruitment through employee training

Training is a cross-cutting issue that applies equally to de-biasing recruitment processes, managing age-diverse teams and integrating flexible working arrangements. Many employers invest in diversity training programmes to tackle conscious and unconscious biases towards minorities and in relation to gender, age and other groups of workers directly through courses. According to the 2018 OECD-Dauphine survey among HR professionals, around 44% of firms that include diversity measures in their human resource strategy have implemented such trainings for all employees, and 20% implemented additional specific trainings for human resource personnel; yet evidence casts doubt on their effectiveness (OECD, 2020[16]).

Poor training results (whether age, race, or gender-related) can stem from several factors: voluntary training often reaches those who least need it (Kulik et al., 2007[21]) while, when forced to train, people often resist (Dobbin and Kalev, 2016[22]). Other studies have also shown, in relation to age, that promoting awareness of the stereotypical views and biases we hold, is not effective in eradicating bias or enabling people to suppress those views (Kulik, Perry and Bourhis, 2000[23]). Drawing on behavioural economics, Bohnet (2016[24]) shows how difficult it is to de-bias minds, with a few demonstrably effective interventions concluding ‘’changing behaviour should be the goal rather than changing minds’’.

Instead, appointing a manager or committee with responsibility for change and accountability, whether in relation to gender, race or age diversity, is likely to be more effective than diversity training, which aims to alter attitudes and stereotypes. In this regard, engaging line managers can be particularly effective (Dobbin and Kalev, 2016[22]) as they have a pivotal role for creating an age-inclusive work environment. They are the gatekeepers to promotion or skill development through internal mobility and therefore affect how efficiently human resources are used in a company. Oslo Airport, for example, developed in conjunction with University of Stavanger a two-day course for their managers that focuses on managing employees at different age levels, including seniors (Box 3.5). However, only 42% of employers offer their managers training on management practices for a multigenerational workforce according to the AARP Global Employer Survey 2020.

Box 3.5. Training Managers to Retain Older Workers at Oslo Airport

Oslo Airport (OSL) owns and operates Norway's main airport. The company has 500 employees with an average age of 46 years. In an attempt to promote healthier and longer working lives, OSL developed an initiative called the "Life Phase Policy" with the initial target to increase the average retirement age at OSL by six months. The initiative includes several programmes.

Among those, in the Ageing and life-phase human resource (HR) training programme managers receive training to cope with challenges related to the management of different generations. The two-day course that was developed in conjunction with and is run by the University of Stavanger focuses on the differences in managing employees of different age levels, including seniors.

Other programmes include annual health monitoring including dietary and training advice, which has a special focus on older workers, the option for employees over 62 years of age to change working hours according to their needs and the option to be relocated to less physically demanding jobs after retraining.

After introducing the "Life Phase Policy", OSL increased the actual retirement age by three years from 63 to 66, strongly over-achieving their target of six months, thereby retaining the valuable skills of older workers for a longer period. In addition, the company has reduced sick leave and very few employees have been declared medically disabled.

Source: Adapted from European Agency for Safety and Health at Work (2016[25]) "Case Study – Oslo Airport's Life-Phase Policy: Norway".

Employee engagement

Strategies that effectively promote employee engagement and buy-in can also go a long way in developing an age-inclusive culture. One way of employee involvement is through so-called Employee Resource Groups (ERGs). While mostly common in the United States, they can also be a feature of some European companies. ERGs are groups of employees within a company that are led – and often also initiated – by employees on a voluntary basis. Members of ERGs usually dedicate leisure time for their activities but employers may also allow meetings during business hours or support ERGs financially (Biscoe and Safford, 2010[26]).

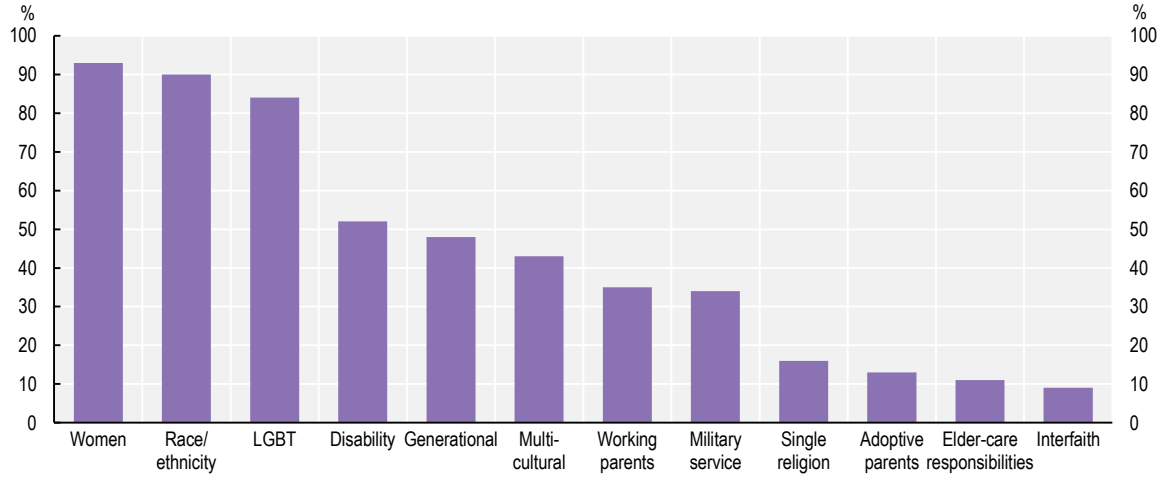
Initially ERGs were mostly vehicles of social movement related to minority rights such as for LGBTI people but the covered themes are expanding. Given their historical development, the large majority of firms has ERGs related to gender, ethnicity or race and LGBTI groups. Age-related ERGs exist in every second firm according to Mercer's Come of Age study enacted in Australia, several European countries, Japan and the United States (Figure 3.5).

Research on the effectiveness of ERGs is scarce even though they have considerably grown in numbers (Welbourne, Rolf and Schlachter, 2015[27]). Nevertheless, other studies on corporate diversity taskforces that share similarities with ERGs, show that intergroup contact effectively reduces prejudice among a broad range of minority groups including older people (Bertrand and Duflo, 2016[28]). They can also promote accountability, engage members and increase contact among the diverse groups who participate. Moreover, ERGs, are a relatively inexpensive way to promote employee engagement and participation.

A related approach to more inclusion through employee engagement is to install a culture of camaraderie at the workplace. Company-funded lunches, family picnics or related employer-financed events aim at bringing employees together in a non-work setting so they can learn about each other. Effectiveness of such measures relies on real connections spilling over into day-to-day collaboration at work to increase productivity (Forbes, 2017[29]).

Figure 3.5. One age-related employee resource group (ERG) in every second company

Share of companies reporting each type of ERGs



Note: The survey sample consists by two-thirds of companies that operate in more than one country. The first base of these companies is in the United States (76%), Europe (21%) and Australia or Japan (3%).
Source: Mercer (2011[30]), *ERGs Come of Age: The Evolution of Employee Resource Groups*.

StatLink https://stat.link/t5ymcu

Policies to improve internal mobility, foster retention and lower turnover costs

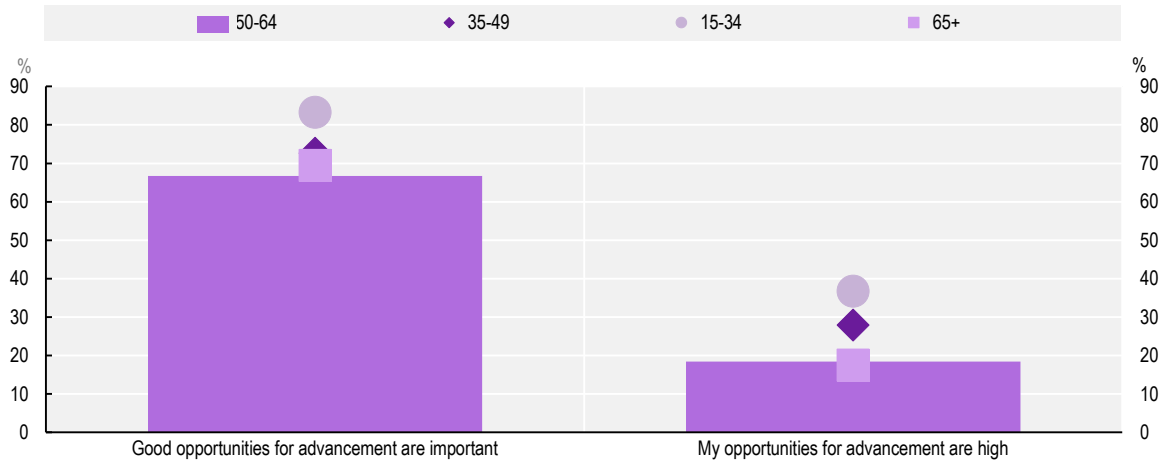
Allowing for internal mobility as effective retention policy

External job mobility in the form of new hires and employees leaving is a mixed blessing for employers. Departing workers are a loss of human capital for the company while incoming workers bring new ideas and widen the covered skill set in the workforce, which also fosters skill development among existing employees through knowledge spill-overs. Drawing on high turnover rates in highly innovative companies in Silicon Valley, Cooper (2001[31]) argues that in sum allowing for external mobility raises innovation. This is because the positive skill effects overcompensate loss of human capital and the non-exclusivity of the innovation that may go along with a departing employee that joins a competitor. Yet, high turnover of employees is also expensive for companies. Boushey and Glynn (2012[32]) measure that the additional costs of hiring can amount to 20% of that position's annual salary. Successful retention policies can therefore be true cost-savers.

A key reason for employees to quit their jobs is career advancement. This holds for young age groups that stand at the beginning of their career as well as older workers who need good career perspectives for long working lives potentially beyond the statutory pension age. Employees of all ages, indeed feel that employers can do more to offer advancement opportunities (Figure 3.6).

Figure 3.6. Career advancement opportunities are much fewer than sought by employees

Share of respondents agreeing with the indicated statement, by age group in 2015



Note: The countries included are: Australia, Austria, Belgium, Chile, the Czech Republic, Estonia, Finland, France, Germany, Hungary, Iceland, Israel, Japan, Latvia, Lithuania, Mexico, New Zealand, Norway, Poland, the Slovak Republic, Slovenia, South Africa, Spain, Sweden, Switzerland, Taiwan, the United Kingdom and the United States.
Source: OECD calculations based on International Social Survey Programme 2015 data, questions Q2c and Q12c.

StatLink https://stat.link/ofs40m

Annual performance assessments of all employees play an important role in career advancement and have become a common practice in most companies nowadays. These assessments can determine eligibility for a promotion and determine eligibility and size of variable pay or bonus payments. While individual performance assessment is still the most common approach to performance measurement, it fails to account for indirect contributions of employees to the team success. In particular older workers may be undervalued in such systems as they tend to provide more coaching, knowledge transfer and other forms of guidance to other team members while positive productivity effects may not be traced back to them (Mercer, 2019[33]). Introducing elements of group-based performance measurement, for example by making the individual assessment also depend on team outputs, encourages indirect contributions and fosters collaboration within and across age groups.

The answer might not always necessarily be a move upward, but rather a lateral move to another part of the organisation. This enables employees to expand and enhance their careers while the organisation retains top talent. Employees stay longer with the company because they feel like their career is moving forward.[3] This way, allowing for internal mobility acts as an effective retention policy.

Internal mobility – in the form of moving people between roles to fill vacancies and offer development and career progression – shares many features with external mobility; it fosters development and transfer of skills. Structured processes to move people between roles, do succession planning and fill internal vacancies facilitate internal mobility and make it more effective. Keller (2018[34]), for example, finds that candidate selection upon formal internal job postings significantly increases both match quality and retention rate compared to an informal candidate selection.

Returner or re-entry programmes can help employers tap in older workers' skills and expertise

Working lives are becoming increasingly diverse as the traditional model of education, work and retirement is no longer the norm. Care tasks, sabbaticals, re- and upskilling are essential parts of a modern working life for all ages and that lasts longer (Chapter 1). Acknowledging employees' changing needs throughout life course and a long career and providing them with the tools to react to it without leaving the company can be a crucial advantage in the race for talent.

People with long career breaks tend to have a much harder time to find work, in particular at older ages when they receive fewer job offers, which results in later and less frequent re-employment (Wanberg et al., 2016[35]). Returner or re-entry programmes that allow people with a long career break to combine part-time work with training to update outdated skills may be helpful to make use of older workers' experience. In attempting a return, some argue that older workers experience difficulties that training and development can help overcome (Hartlapp and Schmid, 2008[36]); (Shacklock, Fulop and Hort, 2007[37]). The "New Deal 50 Plus" programme in the United Kingdom is an example for a country facilitating individuals re-entry through formal programmes that aim to boost skill development, the employability of workers and productivity of organisations (Brooke and Taylor, 2005[38]).

Some employers install formal returner or re-entry programmes by hiring returnees on a systematic basis and offering in-house support to enable them progress. The main reason to establish such a programme is the opportunity to bridge the skills gap that has developed during the career break. Rieger, Bird and Farrer (2018[39]) found that the most frequently used support mechanisms for returners by employers in the United Kingdom are induction sessions, mentoring and coaching, role-specific training, and feedback and review sessions. These support instruments were also perceived as the key contributors to the success of the programmes while the financial costs, and burden on resources, were seen as minimal when compared to the return on this investment (Rieger, Bird and Farrer, 2018[39]).

Supporting employees in financial and retirement planning

Throughout an employee's lifecycle and career, they may benefit from opportunities to review and plan their future work options (e.g. career moves, learning and development opportunities), their financial commitments and plans, and aspects of their health and work-life balance. Many employers have adopted this life-stage approach to career planning as an effective way to retain workers. This identifies potential next career steps of their employees that may then be part of annual employer-employee conversations on individual development (as discussed in Chapter 5).

From mid-career and beyond, many workers are also concerned to ensure that they are making plans for their eventual retirement and this will be a need to which more employers will need a flexible response. Against the backdrop of a quickly ageing workforce, the Aviva financial services company has trialled a series of such mid-life reviews for employees over 45 suggesting that financial planning is most demanded (Box 3.6).

However, it is increasingly clear that it is not just older workers who need such support. For example, growing concern about the financial well-being of employees throughout the lifecycle has prompted more employers to offer support to younger workers too. As Serido et al. (2013[40]) suggest, so-called "emerging adults" have a number of "social milestones" in early adulthood (e.g. transition from education, graduation, student loans, parenthood, mortgages, marriage) which elevate their need for support, advice and flexibility from employers.

Box 3.6. Aviva assists employees in financial and retirement planning

In 2018, Aviva – a large financial services company in the United Kingdom – invites employees in the 45-to-60 age group to a series of seminars on the needs of people in mid-life, called "wealth, work and well-being". The aim of the pilot was to understand employees' motivations around engaging with their financial situation, their career and their well-being. Seminars gave Aviva an opportunity to promote services they currently provide and invited participants to seek one-to-one support, via a financial adviser for their wealth needs, a National Careers Association professional for their work needs and an in-house "health hero" for their well-being needs. Of the three elements – wealth, work and well-being – the wealth element, involving access to financial planning advice, had the strongest demand in advance and received the highest scores afterwards. After this pilot with 100 employees, the company is extending access to the estimated 5 000 employees aged 45 years or more.

Phased retirement for retaining knowledge and experience

Another way to retain older workers in the company is through phased retirement programmes, which allow adapting worktime to changing life circumstances. The term "phased retirement" usually refers to a broad range of both informal practices and formal workplace policies, which allow employees who are approaching the statutory pension age to phase into retirement by working for their employers in a different capacity, instead of switching abruptly from full-time work to full-time retirement. Annex Table 3.A.1 shows the most common forms of phased retirement programmes.

The abandonment of mandatory retirement ages in many countries (Box 3.1) has meant that there can sometimes be an uncomfortable ambiguity about when an older worker retires and how much choice they have over the timing and terms of this decision. If an employer can offer a flexible and phased approach to retirement, taking into account employees' plans and preferences, then they will benefit from the retention of their skills and tacit knowledge and the employee will make a more controlled and healthier transition into retirement (Quine, Bernard and Kendig, 2006[41]).

According to the 2020 Global Retirement Readiness Survey, 57% of workers globally expect a phased transition into retirement and envision working in some capacity in retirement. However, the same survey revealed that 25% of workers do not benefit from any employer support to phase their retirement. Less than one in three workers globally (28%) state that they have the option to move from full- to part- time work to help them phase into retirement, and even fewer (24%) feel their employer offers work suitable for older workers (Aegon Center for Longevity and Retirement, 2020[42]). Poor access to flexible retirement options is a loss not only for individuals, but increasingly for employers too. Even in the current economic uncertainty, employers operating in industries where there are skills shortages, can benefit from offering flexible working arrangements for workers of all ages.

One reason for limited flexibility for older workers may be a fundamental disconnection between how employers think they support their older workers and how they actually do it. If given the appropriate information and "how-to" training, global employers indicate that they would be likely to implement many of the best-practice policies known to create and enhance an age-diverse workforce. For instance, at least two-thirds of employers are open to phased retirement programs (AARP, 2016[14]).

In recognition of workforce ageing and to accommodate older workers and their preferences, some companies follow a broader strategy of older-worker engagement in which phased retirement schemes are successfully embedded (Box 3.7). In several countries, this is supported by a flexible retirement option in the public pension scheme. It allows to combine part-time work before full retirement with receipt of a partial pension from the public scheme, which dampens the income drop when moving from full-time work into phased retirement. However, evidence from nine OECD countries shows that such programmes do not

raise aggregate labour supply. Instead, an earlier reduction of working hours for some people compensates the prolonged working lives on reduced hours for others (Börsch-Supan et al., 2018[43]). Therefore, the key to longer working lives is to design flexible retirement options carefully (OECD, 2017[44]).

Box 3.7. Embedding phased retirement in a broader strategy of older-worker engagement

Bank of America (BOA) has developed a detailed plan for older employees and their transition into retirement. An internal BOA survey of 250 employees age 50 and up indicated that 85% of this group wanted to work part-time or reduced hours as they move towards retirement and 91% want to stay connected to the work of the firm. In response and against the backdrop of a quickly ageing workforce, BOA implemented a series of new programmes and pilots:

1. Built a portal specifically for retirees that enabled them to stay connected and participate in various programs. Piloted a retiree network and currently evaluating a launch.
2. Launched a phased retirement programme for BOA Merrill Lynch (now BofA Securities) employees.
3. Piloted a phased retirement programme for bank employees.
4. Developed a training programme and continuous ongoing education for employees about the value of multigenerational teams and the importance of age inclusion.
5. Implemented a programme to address unconscious biases.
6. Launched the Inter-Generational Employee Network, which creates opportunities for networking, development, mentoring and educational awareness of all generations to benefit from the strength each generation brings to the workplace.

Source: Clark and Ritter (2020[45]), "How are Employers Responding to an Aging Workforce?". This information is based on a presentation by Aubrey Long at the NBER Workshop, 4 October 2019.

Beyond phased retirement, flexible working time and paid or unpaid leave periods for care tasks can also serve as effective retention policies. This holds in particular in countries that do not provide noticeable public policies of child and long-term care. The following chapters will shed more light on employers' realm of possibilities to make jobs attractive and maintain a skilled workforce for sustainable performance.

Key takeaways

- Age-biased recruitment processes are a major barrier in generating and mobilising the multigenerational workforce, despite the universality in anti-discrimination laws.
- Many – and in particular large – employers have set up diversity and inclusion strategies but only few have implemented additional measures demonstrating large gaps in actual practice and rhetoric.
- Use of tailored software and "age blind" hiring processes are more robust ways to draw talent across all ages and overcome stereotypes at all stages of the hiring process including advertisement to job interview and selection decisions as long as the algorithms are scrubbed of age bias.
- Diversity training (especially if mandatory) for all employees is likely to be far less effective in fostering an age-inclusive workforce. Training provided to line managers and engaging employees by forming groups or committees are more effective ways to reduce prejudice and change negative attitudes due to their accountability factor.
- Companies need to adapt their workforce to the ever-changing business environment. Adopting measures such as strategic workforce planning can be a win-win solution. It can help employers being ahead of the market to avoid skill shortages before they appear whilst hiring based on skill priorities rather than age. Tools for strategic workforce planning can be integrated with corporate platforms for career development.
- Retaining talent is just as important as finding it at the first place. Providing opportunities for career and financial planning throughout employees working lives, greater returnship programmes, and phased retirement can act as effective retention policies.
- Group-based performance assessment can encourage internal mobility especially for older workers who can be undervalued as some of their function such as mentoring and coaching goes unrecognised in individual performance systems. Team-based performance systems can also foster greater collaboration between employees of different generations and allows for their complementarities take effect.

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Annex 3.A. Phased retirement programmes in companies

Phased retirement options can take different forms. Among the most popular are reduced working hours per day, reduced days a week or a month, and temporary, seasonal or on-call work. Some companies have also experimented with rehiring retirees from their companies and with other innovative arrangements (Annex Table 3.A.1). Indeed, a UK study (Platts et al., 2019[46]) found that 25% of people who retired subsequently "un-retired", and only rarely for financial reasons. This suggests that, for many, retirement is no longer a binary choice between working and not working.

Annex Table 3.A.1. The most common kinds of phased retirement programmes

Arrangement	Example
Reduced hours or days	Mercy Health System in southern Wisconsin offers a programme that allows workers age 50 and older with five years of service the opportunity to work reduced, pool or work-at-home schedules.
Temporary	Offer project-based work opportunities in which participating workers work full time while projects are active and do not work in the time between projects.
Seasonal, on-call	Dependent on the season and weather, for example around holidays or in the flu season.
Rehiring retirees	MITRE Flex Options for Mature Workers, Part-Time on Call Program (Reserve Program for Retirees): Retirees who participate in the Part-Time on Call Program provide short-term project support for complex and highly specialised projects. These mature workers are then available to mentor younger employees, share their technical expertise, and provide in-depth knowledge of government agencies. Bon Secours Virginia Health System invited retired nurses to consider returning to work for as few as 16 hours per week, during which they could get retirement pay and regular pay and benefits. Even though many employees had been excited to retire originally, they were happy to come back for the camaraderie and extra income. The hospital benefited from having a knowledgeable base of workers, especially in times of a higher census of patients, the flu season or a lot of regular workers on vacation. Older workers of The Aerospace Corporation, located in California, can take a leave of absence for up to 90 days to try out retirement without losing their job or employee benefits if they opt to return to full-time work. After retirement, they can work up to 1 000 hours per year and still retain benefits. Cornell University Encore Hire programme in place since 2009, in which rehired retirees work for short-term positions where the work can often be done remotely.
Other arrangements	Allow workers to work at different retail or office locations at different times of the year. Offer a shared leave pool in which workers can donate accrued leave and withdraw from it for qualified activities. Offer taking a sabbatical to avoid burnout and take time to consider future choices.

Source: De Loatch (2019[47]) "As the workforce ages, phased retirement grows", https://www.hrdive.com/news/as-the-workforce-ages-phased-retirement-grows/557485/; Paullin (2014[48]), *The Aging Workforce: Leveraging the Talents of Mature Employees*; The Center on Aging & Work (2020[49]), *Innovative Practices Database*, http://capricorn.bc.edu/agingandwork/database/search/case_study.

Notes

[1] The response categories were recruitment practices, compensation and benefits, intergenerational relations, training and development, employment predictability and security, assessment practices, flexible work options, options for continued work or retirement. The Talent Management Study was conducted in 2015 among over 350 organisations in the United States.

[2] Small and medium enterprises are here defined as having below 250 employees.

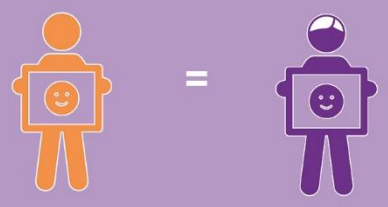
[3] LinkedIn behavioural data suggests that employees stay 41% longer in companies with high internal hiring compared to those with low internal hiring (LinkedIn, 2020[50]). Company-specific findings from Gerlach and Hübler (2009[51]) confirm that higher internal mobility lowers external mobility.

4 Making jobs attractive

Employers who respond positively to the changing needs of employees during their lifecycle and career stages improve their success in attracting, motivating and retaining workers. These workers will in turn exert effort on behalf of their company and play a full part in making it efficient and productive. While the ways that employers use to better understand and respond to changing employee needs will differ between countries and sectors, the principles underpinning them are likely to have wide applicability to employees of all ages and in all occupations. This chapter review two key aspects of work: work-life balance and workforce health and well-being – which can provide an attractive environment for employees to thrive and be engaged and productive.

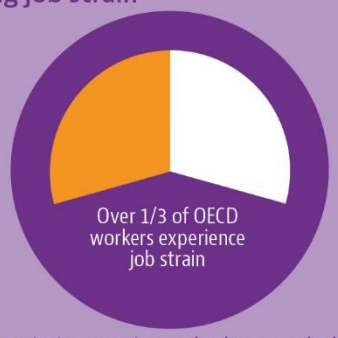
Infographic 4.1. Key facts: Job attractiveness

Making work fulfilling



Evidence across 34 countries shows that the factors that make work fulfilling are largely the same.

Reducing job strain

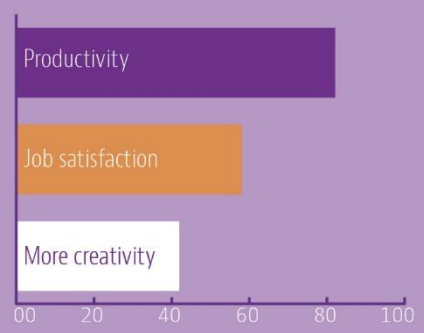


Job strain is experienced when work demands exceed the resources available.

Offering flexible work arrangement

93% of large employers offered some kind of flexible work arrangements at the peak of the COVID-19 pandemic.

Flexible working hours can boost productivity, job satisfaction and more creativity.



Cost of presenteeism

Lost productivity from attending work when unwell or not motivated is estimated to cost one-and-a-half times more than that of sickness absence.

Employment and productivity costs in EU economies

EUR 240 billion **EUR 260 billion**

Large majority of the costs of musculoskeletal disorders and mental illness are borne by employers.

Introduction

Making work attractive to a workforce whose composition is constantly changing requires agility and flexibility on the part of employers and support from governments. To ensure that there is an adequate supply of skilled, healthy and motivated workers it is important that work is inclusive, that it embraces workforce diversity and that it offers workers opportunities for personal growth and fulfilment. In the context of longer working lives, it is even more important that employers devise working conditions that support workers to retain their motivation, physical and mental health, and productive capacity at all ages.

What makes a job attractive: Do age differences matter?

As highlighted in Chapter 2, the widespread view that it is possible to categorise workers into distinct age cohorts within which the needs of workers can be neatly summarised and segmented is rarely based on strong evidence, and can often underplay the many more similarities in work needs shared across the generations.

Of course, differences between ages do exist. In general, older workers tend to have more chronic health problems, meaning that support to stay active at work and to accommodate the symptoms of chronic pain or fatigue may be greater for older workers on average. But beyond the average, there is substantial individual variation in the support that is needed as well across age groups and life stages.

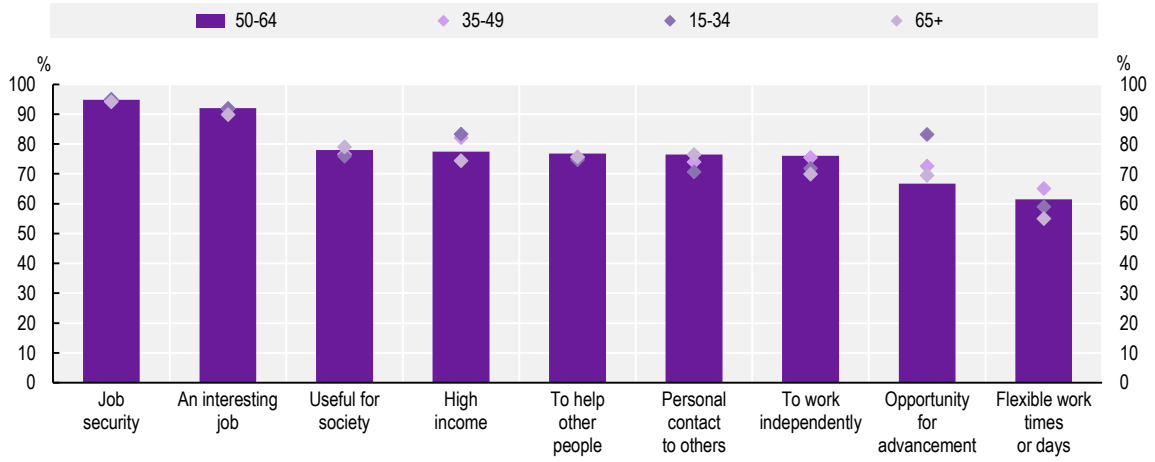
Moreover, reviews of the academic research suggest that the factors that make work fulfilling for older workers are largely the same as they are for other workers. Older workers look for employment that is personally meaningful, flexible, intellectually stimulating, sociable, age-inclusive and offers any adjustments needed for health conditions and disabilities. Older workers are more likely to stay in work if they think that their work matters, their employer supports them and their needs are taken seriously. They value opportunities for learning, mentoring others, and career progression. These factors support a positive work-life balance and strengthen connections to employers, colleagues and customers. Fulfilling work helps to promote self-esteem, confidence, engagement and performance. The principles for managing older workers are effectively the same as for staff of any age (Marvell and Cox, 2017[1]).

Data for 43 countries from the International Social Survey Programme (ISSP) show that, indeed, the importance attached to a range of features of work vary little by age (Figure 4.1). While there are some differences on the question of career advancement (with younger workers attaching more importance to this feature), the needs across age groups cluster closely, suggesting that intergenerational similarities are more noteworthy than any differences.

Businesses and governments can both gain from developing a better understanding of the ways that the needs of the workforce for fulfilling, high quality and rewarding work change over time, and over the lifecycle. This will make it more likely that policies and practices can be developed and implemented which maximise the chances of attracting, motivating and retaining skilled, energised and committed workers who can add to the productive capacity of the employers for whom they work and the wider economies within which these firms operate.

Figure 4.1. Attractiveness of job attributes by age group

Percentage saying the feature is very important/important



Note: The countries included are: Australia, Austria, Belgium, Chile, the Czech Republic, Estonia, Finland, France, Germany, Hungary, Iceland, Israel, Japan, Latvia, Lithuania, Mexico, New Zealand, Norway, Poland, the Slovak Republic, Slovenia, South Africa, Spain, Sweden, Switzerland, Taiwan, the United Kingdom and the United States.
Source: International Social Survey Programme (2015, Work orientation module).

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The key, however, is to invest effectively in improving job quality for workers at all ages. There is a substantial body of evidence that good job quality can improve workers' productivity, health, performance and engagement, all leading to better outcomes for companies. To help promote a better understanding of what this entails, the OECD has developed a framework to analyse and assess job quality. The framework considers three objective and measurable dimensions:

- **Earnings quality**: captures the extent to which earnings contribute to workers' well-being in terms of *average earnings* and their *distribution* across the workforce.
- **Labour market security**: captures those aspects of economic security related to the risks of job loss and its economic cost for workers. It is defined by the risks of unemployment and *benefits* received in case of unemployment.
- **Quality of the working environment**: captures non-economic aspects of jobs including the nature and content of the work performed, working-time arrangements, workplace relationships or unhealthy working conditions. These are measured as incidence of job strain characterised as *high job demands* with *low job resources.*

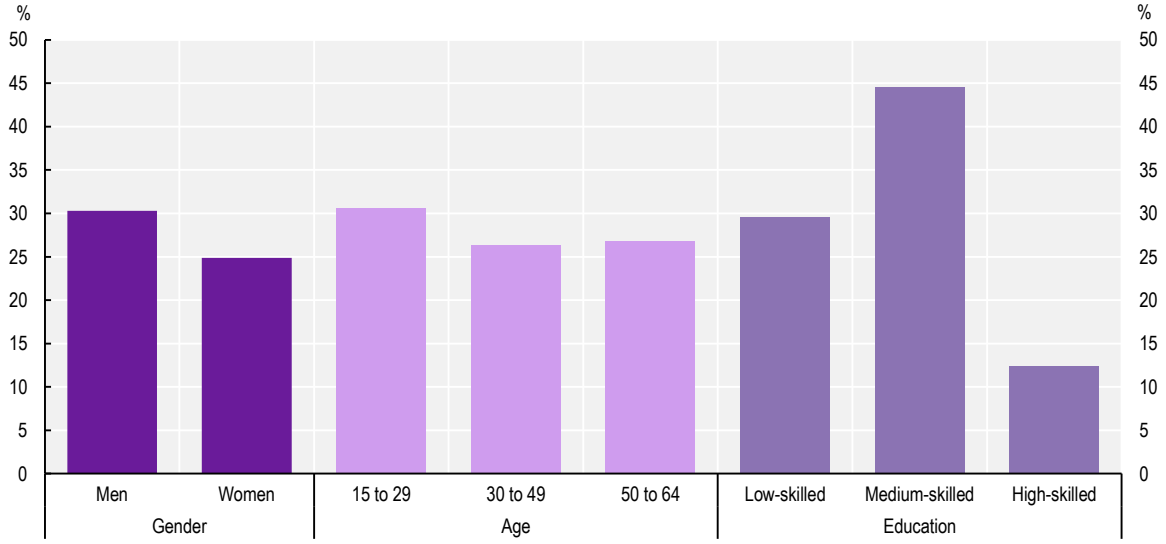
Quality work environments – the primary focus of this chapter – have an impact on various business outcomes, such as productivity gains, service and product quality, innovation, customer satisfaction/loyalty, and financial performance. Various studies (Marmot et al., 2020[2]) have shown that there is a strong relationship between high levels of "job quality" (for example, autonomy, control, voice, challenge, variety, growth opportunities, social support and a balance between effort and rewards) and improved performance and better physical and mental well-being.

Despite these benefits, many workers across the world report that they are working in poor quality jobs. Over one-third of workers in OECD countries experience "job strain" – where work demands (e.g. physical demands, work intensity, inflexibility of working hours) exceed the job resources available to cope with these demands (e.g. task discretion and autonomy, training and learning opportunities, and opportunities for career advancement) (Figure 4.2).

This is bad for workers and bad for business. There is strong evidence of, on the one hand, a negative relationship between job strain and productivity, and, on the other hand, a positive relationship between job rewards and productivity (Arends, Prinz and Abma, 2017[3]; Warhurst et al., 2018[4]). Better productivity outcomes, in turn, translate into higher financial performance. Business units and workplaces with highly engaged employees are more profitable (Harter, Schmidt and Keyes, 2012[5]) and perform better in terms of a number of indicators including revenue growth and stock gain (Rayton, Dodge and D'Analeze, 2012[6])

Figure 4.2. Job strain affects four out of ten workers across the world

Incidence of job strain, OECD average, 2015



Note: The OECD is an unweighted average and excludes Canada, Colombia, Korea and Switzerland.
Source: OECD Job Quality Database, http://stats.oecd.org//Index.aspx?QueryId=100555.

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Action by employers and governments in two key areas can help workers stay productive and contribute to longer careers. These include (i) fostering work-life balance for all and (ii) promoting workforce health and well-being.

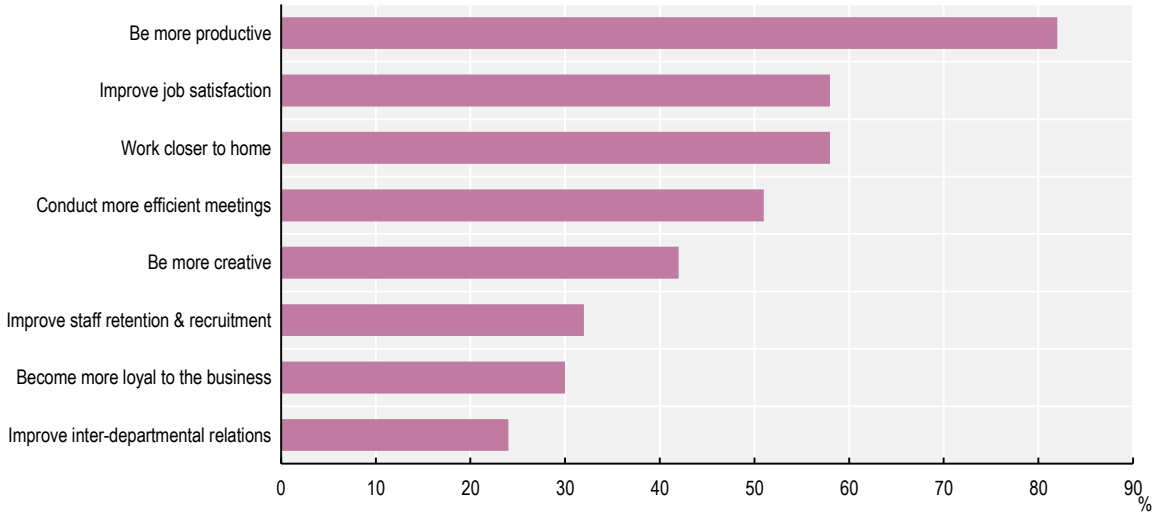
Getting work-life balance right for all workers

Why good quality flexible work matters?

Offering flexible working options to all workers regardless of age or life stage can benefit an employer in many ways. Employees who are given flexible work options are less prone to burnout and do not suffer as much psychological distress in comparison with workers who are not allowed to work flexibly. Flexible work arrangements are effective in helping organisations respond to the potential loss of skills linked to the retirement of older employees. Flexible work options can also help people to manage their work and family responsibilities better (McNamara and Tinsley-Fix, 2018[7]). Flexible work arrangements have also been shown to result in happier, healthier, and more productive employees (Moen et al., 2016[8]). A recent survey of working at home during the COVID-19 "lockdown" also reported a positive link between control over work-life balance and mental health (Bevan, 2020[9]).

It is clear that those employees who value flexible working as an important aspect of their working environment have positive responses towards their employers. These benefits are highlighted in the results of an International Workplace survey of 18 000 employees (Figure 4.3).

Figure 4.3. Effects of flexible working



Source: Wood (2019[10]) *Finland is about to take flexible working a step further,* World Economic Forum, https://www.weforum.org/agenda/2019/08/finland-s-doing-something-cool-with-flexible-working/.

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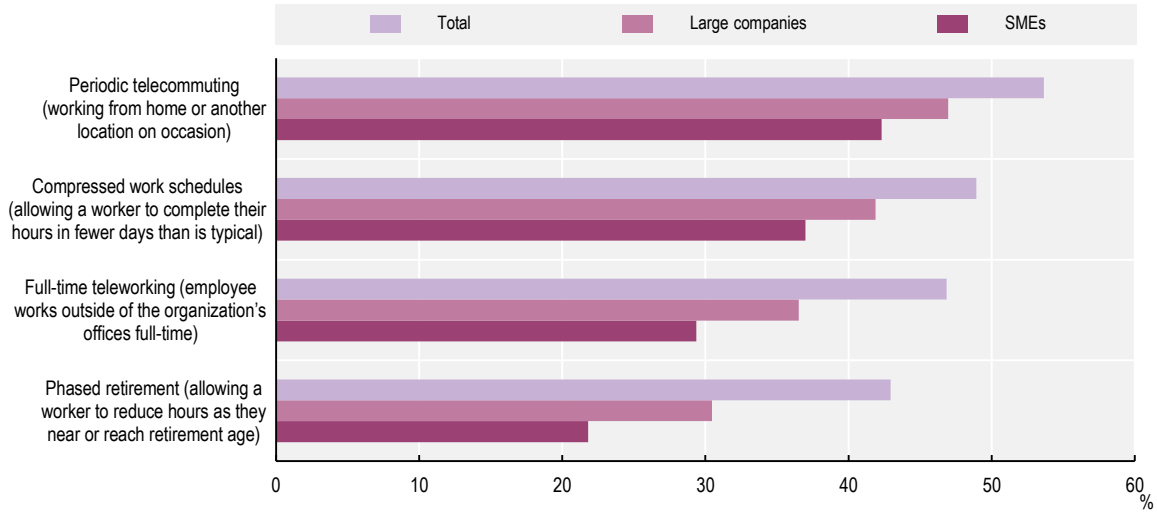
Prevalence of flexible working time arrangements

Recognising these benefits, access to some forms of flexible working time arrangements (FWTAs) have increased in many developed economies through a combination of regulatory change and more enlightened HR practice. According to the recent AARP Global Employer Survey (2020), roughly 93% of large firms provide their employees with one or more options for periodic telecommuting, full-time teleworking, working "compressed" weeks (working an extra hour each day to get Friday afternoon off) or phased retirement allowing workers to reduce their hours as they approach retirement (Figure 4.4). Large organisations are more likely to offer FWTAs than small or medium-sized organisations, as it can be costlier for smaller businesses to rearrange tasks among workers. The large prevalence highlights the impact of COVID-19 where organisations, in some cases, turned in a virtual workforce overnight and flexibility became the name of the game. Prior to the pandemic, about half of global employers allowed periodic telecommuting, with 42% offering compressed work schedules, and 37% offering full-time teleworking (Perron, 2020[11]). Similarly, evidence from Europe suggests that take-up of teleworking arrangements remained quite limited and, contrary to widespread belief, without much increase over the years (OECD, 2020[12]).

There is also a socio-economic gradient in the availability of good quality flexible work. A number of personal and family characteristics are closely associated with the use of flexible working arrangements. Among all personal characteristics, the level of education is most closely correlated with access to, and use of, flexible working arrangements. Employees with a university degree are more likely to have greater control over their working time and are also more likely to work from home at least occasionally. Employees with long commutes also report more flexibility in their working time, and a greater likelihood to work from home, while they are less likely to take a break for personal affairs during the working day (Glenn Dutcher, 2012[13]).

Figure 4.4. Flexible working arrangements offers by employers

Share of employers, by SMEs, 2020



Note: SMEs (small and medium-sized enterprises) are defined as having less than 250 employees. Based on 3 831 Interviews conducted between March and May 2020 across all OECD countries except Colombia.
Source: AARP Global Employer Survey 2020.

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Overall, evidence suggests that work-schedule flexibility improves employees' views of their own work-life balance. In particular, having some freedom to set starting and finishing times and arrange breaks during the working day increase the perception that working hours fit in with family and social commitments. Employees who occasionally work from home, and who have some control over their daily working time, are less likely to report that family responsibilities prevent them from giving enough time to their job.

In addition to its benefits for work-life balance and well-being, teleworking or the autonomy in deciding where to perform the job – might have benefits for productivity, although the findings are inconclusive. Employees working from home are more engaged at work because working from home enables them to organize their work more efficiently; display higher innovative performance on the organisational level and higher creativity. However, some studies find that teleworking causes negative feelings such as isolation and has a negative productivity effect on dull tasks (Glenn Dutcher, 2012[13]), and reduces knowledge transfer between employees (Saint-Martin, Inanc and Prinz, 2018[14]). The divergence in the results indicate that providing employees with flexibility on where to perform the job could have potential benefits for firm productivity, but teleworking arrangements need to be carefully designed to meet the needs of workers and employers. For instance, ensuring that workers have the instruments to work from home under good conditions (computer or tablet, broadband connection, room to work undisturbed etc.) are key to offset some of the negative effects. It will also require planning work organisation, in particular in the case of a second COVID-19 pandemic wave, and training the workforce to make the most of teleworking (OECD, 2020[12]).

Employer policies to promote flexible work arrangements at the workplace

To provide greater access to flexible working arrangements, many governments have taken the legislative route. For example, in countries such as Australia, Finland, Norway and Sweden, the right to flexible working is targeted at carers and/or parents of young children. By contrast, a "right to request" flexible working is granted to all employees, irrespective of their reasons for seeking change in Belgium, France,

Germany, New Zealand and the Netherlands for workers in firms with ten employees or more, and since 2014 the United Kingdom (OECD, 2016[15]). Given workers' risk of exposure to COVID-19 at the workplace or their need for greater flexibility to work from home as schools and care facilities were closed, many countries also took steps to facilitate a massive transition towards teleworking for workers who do not have to be physically present at their workplace. However, to be effective, legislation needs to be accompanied by support from collective agreements and with changes in work organisation.

At the employer level, there needs to be good information on flexible work arrangements. Evidence from UK public hospital employees (representing an older than average workforce), revealed that most had limited knowledge of the availability of flexible working opportunities, or how changing work patterns might affect pensions in later life, a gap that informs the proactive choices they are able to make (Weyman, 2013[16]). Good practice can include establishing well-communicated protocols and procedures around flexible working arrangements to improve employee access to them. These might be publicised in a range of ways, for example, through workshops, newsletters and internal communications, as well as being embedded in workforce knowledge from the point of induction.

Flexible working arrangements can also be most successful when they are taken on as a central part of organisational strategy. To ensure that older workers feel sufficiently secure to request flexible work without damaging their occupational position is key in building organisational cultures in which flexibility is mainstreamed. One way in which this can be supported is through ensuring that flexible working arrangements are used by senior staff (Smeaton and Parry, 2018[17]).

Simplifying flexible working time arrangements

However, employers may face a range of barriers and challenges around flexible arrangements. For instance, some businesses worry that implementing flexible working practices might restrict customer service quality. Such concerns can lead some employers to focus on the difficulties of flexibility rather than its benefits and make them reluctant to extend these practices more widely, despite demand from employees. There is some evidence from European employers who have been compelled to offer flexible or remote working during the COVID-19 pandemic, that some of their objections to working at home and flexible working have softened (Eurofound, 2020[18]).

Another theme which emerges is that, even if employers are positively disposed to offer flexibility, they are keen to avoid too many highly individualised arrangements. Instead, they prefer to provide a limited "menu" of flexibilities which suit different groups of employees with different needs. For example, in its Flex@Q programme, the Australian airline company Qantas has five approaches to flexibility on offer (Box 4.1). This approach is easier to manage and monitor and balances the needs of employees with the need to maintain operational efficiency and customer-responsiveness.

Box 4.1. The Flex@Q Programme, Qantas, Australia

Prior to developing Qantas' organisation-wide focus, flexible working practices at the company existed, but were often formal arrangements centred on mothers and carers. Flex@Q is Qantas' approach to recognising that its people have different lifestyles and commitments, and creating a culture and workplace where employees are encouraged to think about how they can incorporate flexibility in to their role. The approach also encourages managers to proactively talk to their team members about how flexibility could work for them. This does not mean that all roles can access flexible working all the time. Flexibility is available to employees in different ways, depending on their role and business need. Not all leaders or employees believed that flexible working was possible at Qantas, nor that there were benefits associated, so the company piloted their approach and took the time to consult widely with managers and staff before the scheme as a whole was rolled out. There are five components to Flex@Q:

- **Formal Flex**: Contractual changes such as part time working or job sharing.
- **Rosters & shifts**: This includes pattern bid, day off bid, fixed line roster, carer's line roster, reserve line rosters, shift swaps, shift preferences, shift lengths.
- **Variable hours**: For example, late start times, early finish times, breaks during the day.
- **Leave**: e.g. buy additional leave, single days leave, special event leave, leave at the time of your choosing.
- **Variable locations**: For example, working from home, working anywhere on campus, working in a different location.

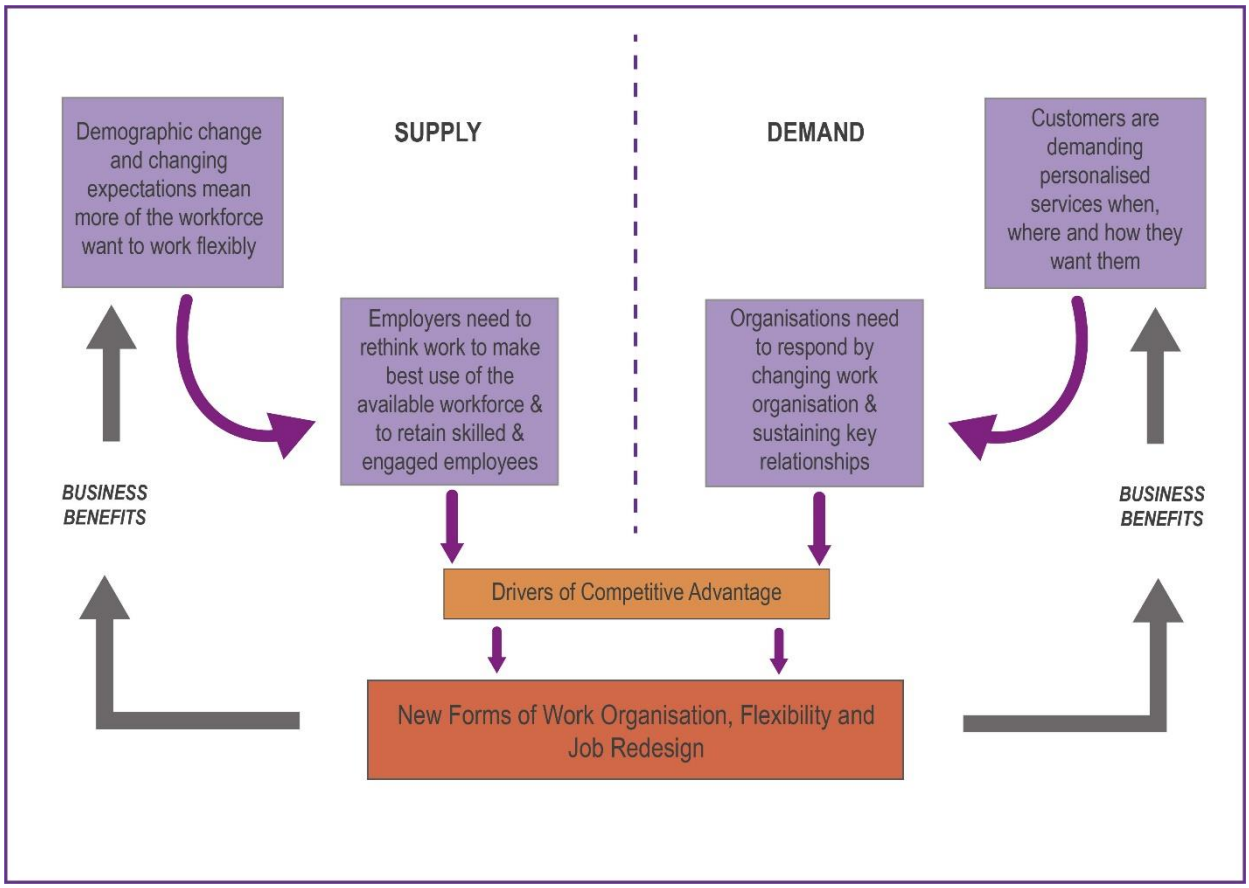
Aside from offering benefits to employees who wish to accommodate their family responsibilities, the initiative has also enhanced the company's ability to deploy its staff more flexibly in the case of short-term changes to flight schedules and other work demands. Rather than approaching flexible working as a stand-alone programme, Qantas identified where the Flex@Q initiative could complement other organisational initiatives, including Male Champions of Change, unconscious bias training and the roll-out of new IT programs. This meant Flex@Q implementation was not seen as an independent change initiative, but as a key enabler of broader, multifaceted organisational change.

Aligning demand for flexibility from customers and employees can strengthen the business benefits of flexible work practices

Introducing flexible working arrangements is not only driven by employee needs. Another feature of modern economies is that a growing proportion of customers also want businesses to be flexible and agile in the way they provide access to products and services. This can mean that organisations which can "flex" to provide 24/7 services or use both face-to-face and online access to products are most likely to achieve a competitive advantage over their rivals.

Thus, by aligning and matching the demands for flexibility from customers with those from employees, the business benefits of flexible working practices are more visible to the employer and can make it easier to make a "business case" that improved access to flexibility has mutual advantage for the employer and the employee. For example, a large retailer may need to have stock replenished and placed on shelves overnight, requiring staffing patterns that can deliver this. Establishing a working model that is attractive to employees who want flexibility (e.g. casual student labour, working mothers) can be of benefit to both workers and the retailer. The model below (Figure 4.5) illustrates how this "mutuality" principle can work.

Figure 4.5. Balancing demand for flexibility from employees and customers can be a win-win



Source: Adapted from Jones et al. (2007[19]), "Transforming work: reviewing the case for change and new ways of working".

But the choices employers can make about the kinds of flexible working practices must take account of benefits to the employee and those which offer more advantages to the business. For example, the use of zero-hour contracts is generally associated with businesses which need to keep fixed labour costs to a minimum in markets where demand fluctuates. In general, they tend to favour the employer over the employee. However, shift-swapping in some sectors (e.g. health care, rail or aviation) can provide beneficial access for employees to a highly personalised and short-notice form of flexibility for employees whose domestic caring responsibilities, for example, may change frequently. In a recent series of 16 case studies of US employers, the Urban Institute found that most had "*both business-based and values-based motivations for providing supports around paid leave, workplace flexibility and control, and child care*"" (Stanczyk et al., 2019[20]).

The publishing company Hachette has sought to test the "mutuality" principle in the way that flexible working practices are designed and tested. The use of the so-called "Flexible Fortnight" approach was intended to allow both employees and their sometimes-sceptical managers to trial different approaches to flexible working before adopting them wholesale. Again, this approach recognises that flexibility has to be advantageous to both employees and the employer if it is to be sustainable in the medium-term.

Box 4.2. Flexible Fortnight at Hachette book group, France

Hachette is a publishing company with operations in Europe and the United States.

The types of flexible working within Hachette include:

- Part-time working: around 15-17% of employees are working part-time.
- Working from home: either ad hoc or agreed contractually.
- Term-time-only workers: mainly sales representatives and customer service staff who are only required to work during school term time as they work alongside schools.
- Compressed hours: in general, this type of flexible working does not work as well within publishing job-shares.

There is a long-standing cultural tradition within publishing, that in June, July and August working hours are compressed so that employees can take Friday afternoon off. Generally, working from home one day per week works well across the organisation for most job roles, which tend to be office based. It is common for employees in editorial roles to working from home, given the nature of their work, and particularly when working on structural edits of a book. Working from home can offer an undisrupted quiet environment for them to concentrate on their work, as opposed to the busy open-plan office.

The company also introduced **"Flexible Fortnight"**, an initiative which aims to encourage employees to trial their ideal flexible working arrangement and encourage the uptake of flexible working across the organisation. Flexible Fortnight was based on four options: non-standard start and end times; working from home; reduced working hours; and working from another office. As part of this initiative, Hachette can specify a trial period for flexible working arrangements and ask the line manager and employee to consider the impact after six months. This allows both parties to consider any learning: is it working, what has gone well, what hasn't gone well, and so on. The company reports improvements in engagement and retention resulting from these flexibility programmes.

Caring for caregivers

Caregiving is an issue for many people both at work and on the margins of the labour market and it can often be a reason why some work fewer hours or stay out of work for long periods (Ciccarelli and Van Soest, 2018[21]). The COVID-19 crisis has further emphasised the need to support workers with caring responsibilities. In a UK survey of people working at home during the "shelter at home", 32% lived with dependent children and 16% provided care for another adult or elderly relative. Population ageing also leads to an increase in requests for elder care assistance. In the United States alone, more than 1 in 5 adults (21.3%) are caregivers. This represents an estimated 53 million adults, up from the estimated 43.5 million caregivers in 2015 (AARP, 2020[22]). Overall, demand for long-term services and supports is expected to grow in the coming decades, with the proportion of the population over 80 years-old projected to double by 2050 in the OECD (AARP, 2020[22]; OECD, 2020[23]). Employers are recognising how providing care to a family member can impact their ability to perform at work. In fact, more than 60% of all caregivers are employed and juggling the responsibility of working and also caring for a loved one. These caregiving responsibilities can lead to increased absences, and an increase in stress and anxiety levels, resulting in decreased productivity. There is a range of options to help family caregivers, including more flexible work schedules, childcare and eldercare assistance, paid family leave and access to services to assist with their caregiving activities (see Box 4.3).

Of course, many employees without caring responsibilities also value flexibility and the opportunity to balance the demands of work with opportunities to pursue personal activities beyond the boundaries of the

organisation. A recent study conducted in a Spanish-based but multi-national technology and travel company found that practices to facilitate work-life balance through flexible working practices benefited carers and non-carers alike, allowing employees without caring responsibilities to engage in learning (Rodríguez-Sánchez et al., 2020[24]). The study also found that providing wide access to such practices improved employee morale and retention. Overall, flexibility in working practices is a feature of modern work environments which many employers have embraced to help deliver attractive arrangements for employees which also result in business benefits.

Box 4.3. Home Instead: promising practice on caregiving

Home Instead aims to model an age-neutral workplace, a supportive working environment, and an inclusive culture, as well as to provide opportunities for life-long learning and participation, financial planning for longer working lives, healthy ageing, and supportive caregiving.

Home Instead Senior Care offers a wide variety of programs and benefits aimed at promoting a healthier work-life balance, making it easier for working caregivers to manage their responsibilities, and enabling older employees to ease into retirement. Some initiatives include:

- **Help for working caregivers:** This robust online service provides tools to support employee caregivers, including access to support from experts in health and ageing, a 24/7 resource line, and tips and solutions to help manage work and caregiving responsibilities.
- **Discount on in-home caregiving services:** Employees are eligible for reduced hourly rates when they engage Home Instead professional caregivers.
- **Caregiving training:** Employees have access to the same training programs as Home Instead professional caregivers, including courses in caring for people with Alzheimer's disease and dementia, and hospice care.
- **Employee engagement:** The Age-Neutral Advisory Group, a cross-functional committee comprising employees who span four generations, is empowered to ensure that Home Instead embraces the contributions from and provides opportunities to workers of all ages.
- **Flexible paid time off:** Home Instead does not track paid time off. The Honor PTO programme allows employees to take vacation, sick, and personal time in the amount they feel is necessary to achieve work-life balance.

For others looking to create a supportive environment for older employees and caregivers in particular, Home Instead suggests starting with an inventory of existing policies and programs, providing education and resources, building awareness of the issues facing caregivers, and making it safe to talk about caregiving challenges.

Improving workforce health and well-being at work

Why should employers take workers' health seriously?

In most countries, employers have a legal "duty of care" to protect all employees from ill-health and injury at work. This involves risk assessment, prevention of hazards, reporting of accidents and the introduction of accommodations or adjustments to work which support both job retention and return to work. Good practice can also include early interventions (e.g. referral to specialist support such as physiotherapy or counselling) and vocational rehabilitation.

Of course, not all ill-health experienced by employees can be attributed to their working environment. However poor-quality work, a stressful job, exposure to hazards, strain or physical exertion can make pre-existing conditions worse. Employers also need to support all employees regardless of age or life stage if they have long-term or chronic conditions which may limit their ability to attend or perform effectively at work. The two most common groups of health problems here are musculoskeletal disorders (MSDs) and common mental health problems such as depression and anxiety. It has been estimated that MSDs in the EU workforce cost EUR 240 billion annually (Bevan, 2015[25]) and that the employment and productivity costs of mental illness cost EUR 260 billion (OECD/European Union, 2018[26]). Others chronic conditions affecting people of working age include cancer, heart disease, chronic obstructive pulmonary disorder (COPD), asthma and neurological disorders such as multiple sclerosis (MS).

Older workers are more likely to be living with multiple conditions, but there are several conditions which are more commonly diagnosed among younger workers which can have a long-term impact on their ability to participate fully in the labour market. These include Crohn's disease, MS and some forms of inflammatory arthritis. Even in the case of dementia, a health condition experienced almost exclusively by the elderly (the average age at diagnosis is 85), the impact on workers at different ages may not be straightforward. According to the Alzheimer's Society, there are currently about 40 000 people with dementia under the age of 65 in the United Kingdom and only 18% of them continue to work after their diagnosis is confirmed. This number is likely to increase substantially as the total number of people with dementia in the United Kingdom is forecast to increase to more than 1 million by 2025 and over 2 million by 2051. Yet the biggest impact of dementia on workplaces is the burden of domestic care borne by working family members with elderly relatives who are living with the condition.

The connection between quality of work, workforce health and business outcomes

Evidence on the link between employee health and good-quality work is becoming a lot clearer. In their landmark report, (Waddell and Burton, 2006[27]) asked the question: "*Is work good for your health and well-being*?" The evidence reviewed clearly highlighted a link; that "work is generally good for physical and mental health and well-being…work can be therapeutic and can reverse the adverse health effects of unemployment…" It also found that: "The provisos are that account must be taken for the nature and quality of the work and its social context; jobs should be safe and accommodating."

Similarly, (Marmot et al., 2020[2]) has provided compelling evidence of the links between quality of work and health and well-being. It shows that employees in lower-status work had reduced health and lower life expectancy than those in higher-status roles. Lower-status workers experienced more stressors, which had implications including increasing the risk of mental illness, coronary heart disease and gastro-intestinal conditions. Marmot's idea of the so-called "social gradient" in health applies in organisations as well as wider society, with a clear correlation identified in his research on civil servants between job control and the incidence of coronary heart disease.

There is also a strong link between health and productivity (Figure 4.6). Healthier workers are more productive as they are not limited by their health issues. Moreover, productivity declines in one employee can lead to declines in their colleagues' productivity, as the co-workers are asked to "fill in the gaps" and compensate. The indirect costs of illness or injury (productivity) then add up to roughly the same if not more than the direct costs (hospital stay and medication), effectively doubling the total amount (McNamara and Tinsley-Fix, 2018[7])

Figure 4.6. Poor working conditions are associated with higher absenteeism and presenteeism

Average across European countries, 2015

Source: Saint-Martin, Inanc and Prinz (2018[14]) "Job Quality, Health and Productivity: An evidence-based framework for analysis", https://dx.doi.org/10.1787/a8c84d91-en.

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How does poor workforce health affect productivity at work?

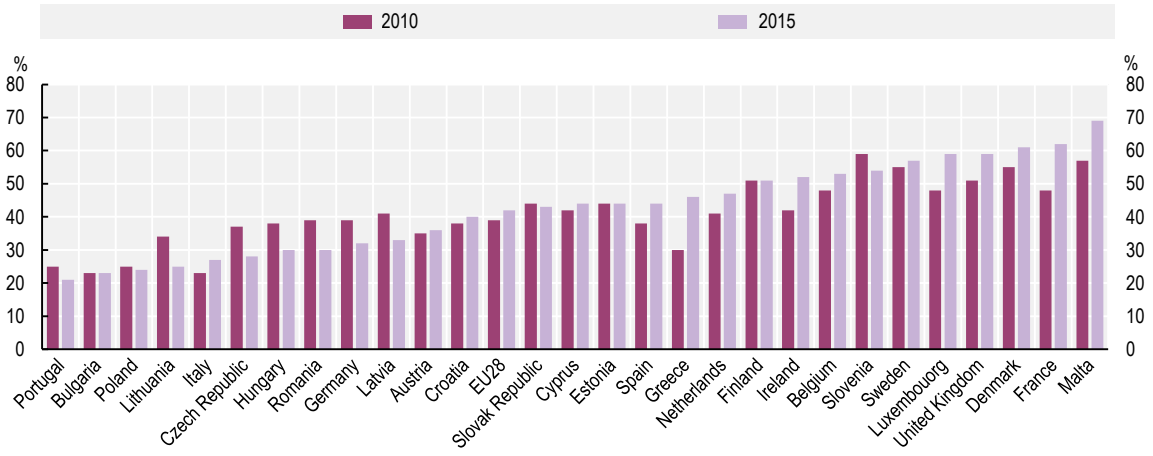
Traditionally, the aspect of workforce ill-health that has preoccupied employers the most has been sickness absence from work. Employees who cannot attend work because of ill-health reduce the productive capacity of the organisation, impair the delivery of products and services and cause organisations to divert internal resources or hire in temporary labour to cover the lost time which results. In response, employers often adopt "attendance management" policies which prescribe how absence is reported, controlled and its effects mitigated. Workplace health promotion initiatives such a smoking cessation programmes, exercise classes, healthy eating options in staff canteens and other "lifestyle" support interventions have become increasingly common as they are believed not only to improve attendance but also to improve attraction, motivation and retention. Despite these investments, the evidence that these programmes are effective in improving health and productivity is not strong (Hillage et al., 2014[28]) and it is likely that there are other health factors which have more impact on productivity than sickness absence.

Foremost among these is "presenteeism" – the lost productivity which occurs while attending work when unwell. While it remains challenging to measure accurately, the UK Chartered Institute of Personnel and Development has recently estimated that presenteeism in the United Kingdom has tripled since 2010. Research conducted in a financial services company (Ashby and Mahdon, 2010[29]) found that the three most important factors leading to employees attending work when ill were having personal financial difficulties, work-related stress and pressure from managers and colleagues to come to work when unwell.

The international data suggests that the United Kingdom is not alone in witnessing an increase in presenteeism in parallel with low levels of productivity growth. Data from two waves (2010 and 2015) of the European Working Conditions Survey (Figure 4.7) shows that self-reported presenteeism has grown in the United Kingdom by 15% to almost 60% of the workforce, and in some EU member states it has increased by between 30-53% (in Greece, for example). The latest data suggest that employees in Malta, France, Denmark and the United Kingdom have the highest rate of presenteeism. It is probably no coincidence that the rise in presenteeism has occurred at the same time as an historic drop in the rates of sickness absence in some countries (e.g. by over a half in the United Kingdom since the 1990s).

Echoing these findings, data from the American Working Conditions Survey (AWCS) shows that presenteeism in the US workforce is very prevalent (Maestas, Mullen and Rennane, 2020[30]). The analysis shows that almost two-thirds of US workers who have no significant health problems report working while sick at least once during the past 12 months and 75% of workers with significant health problems report working while sick. The same study shows that workers over the age of 50 report low levels of presenteeism, with fewer than 60% of workers over 50 ever reporting presenteeism.

Figure 4.7. Presenteeism in the EU, 2010 and 2015



Source: Eurofound, 2010 and 2015.

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In countries with high levels of unemployment and persistent fears of job insecurity, sickness absence can fall and "presenteeism" can rise. If more people who are living with long-term or chronic health conditions are attending work when their health might justify them taking time off work to get treatment or to recover, then this is likely to be a hidden "drag" on productivity even if the data superficially suggests that "labour inputs" have increased (e.g. through higher employment).

A big concern is that employers may be at risk of underestimating employee ill health and missing warning signs by focusing on reducing absence alone. Difficulties of monitoring employee health and presenteeism may be even more challenging with greater number of workers working from home in the wake of the COVID-19 pandemic. Presenteeism may be detrimental to employee health in the long run because it can "mask" serious illness. In the famous Whitehall II study of the long-term health of UK Civil Servants, (Marmot et al., 2020[2]) found that: *"… an elevated risk of serious coronary heart disease was found for those men with bad self-rated health who did not take any sick days at all compared with those unhealthy men who had a moderate number of sick days (*i.e. *1-14 days)."*

The cost of presenteeism to employers is estimated to be 1.5 times higher that of sickness absence, so any efforts which employers can make to understand and control presenteeism are likely to have more impact on productivity than a focus on sickness absence alone.

Moving towards a holistic approach to well-being programmes

More employers now recognise the concept of "holistic" well-being, seeing their employees as whole people, including their physical, mental, spiritual, and social lives, and creating an environment where employees feel seen, heard, appreciated and that their work has meaning. Meaningful work is associated

with lower depression and can help build work engagement (Allan et al., 2016[31]; Johnson and Jiang, 2017[32]).

Well-being programs which reflect a blend of financial, physical, and social/emotional programs to provide maximum support for employees reflect this holistic approach and recognise that aspects of job quality need to be woven into them alongside other lifestyle and fitness interventions. For example, a growing percentage of companies are expanding their well-being programs to include employee financial security, such as access to debt management tools or student loan counselling. Financial security programs are the third most-popular offering, following physical well-being programs and emotional health programs. Financial well-being is an important well-being pillar as it is hard to engage employee's wider health needs if they are struggling with managing a budget or large household debts. (Fidelity, 2017[33]).

Some employers have thought carefully about how they can make adjustments to work which balances job quality, safety, well-being and flexibility. The willingness of some employers to design and implement workplace well-being initiatives which have clear operational and health benefits for both the business and the workforce illustrates that it is possible to promote well-being and productivity simultaneously. The case study featuring the Finnish manufacturer Lujatalo (Box 4.4), shows the benefits of a systematic approach to the analysis of risk exposure and the benefits of early interventions to make adjustments to job design.

Box 4.4. The benefits of early intervention to make adjustments to job design: Improving well-being in Lujatalo, Finland

Lujatalo is a family-owned business in Finland. It designs, manufactures and builds innovative materials for commercial and residential construction developments. It employs 750 people and has been trading for more than 60 years. About half of Lujatalo's workers are aged over 45. Because of the physically demanding nature of their work, continuing careers until the official retirement age is often challenging. Their workers typically suffer from musculoskeletal problems, and supervisory work is also associated with an increased mental workload and higher stress levels.

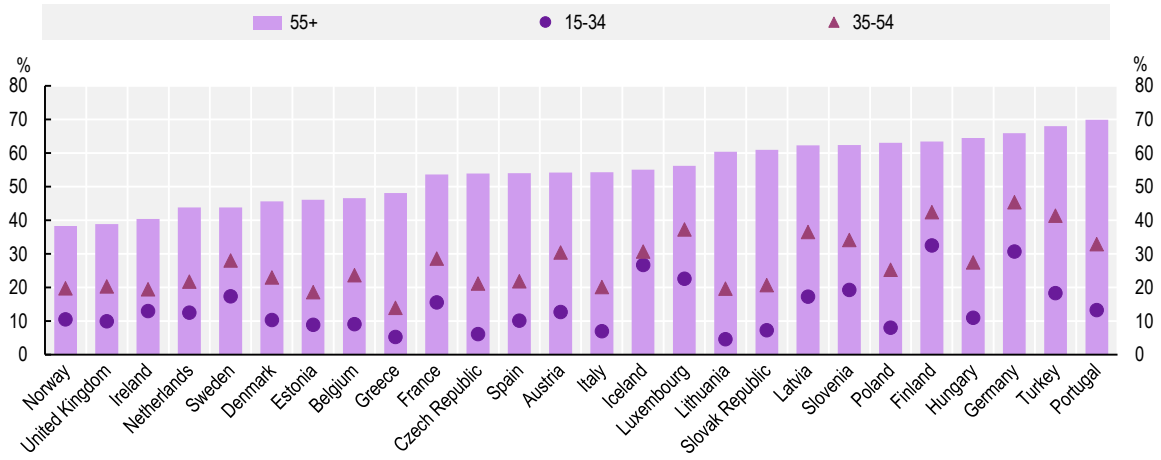
The company decided that measures to improve the sustainability of working life for all workers were needed. An early-intervention model with follow-up actions for those with reduced work ability was adopted. The interventions are carried out in cooperation with foremen, occupational health services and insurance companies, under the lead of the company's head of health and well-being. Vocational rehabilitation is provided by Lujatalo, including work trials and retraining, such as retraining production workers with long experience to become foremen. Changing tasks or work content enables workers to continue their careers until they reach retirement. Of those workers facing early retirement from a physically demanding role, it is estimated that up to two-thirds could be retained in the workplace through vocational rehabilitation. Ideas for easing the burden of physical work and improving safety are gathered in the Lujatalo databank. This electronic ergonomics databank will be made accessible to all employees via a smartphone app. Safety observations are collected with the Safety-App, which enables photos to be taken of observations to illustrate any shortcomings and is also particularly useful for foreign workers who may not speak Finnish. In addition, reporting has been incentivised by the company, with monthly rewards for reporters in the form of cinema tickets. Lujatalo also promotes safety during the commute to work by subsidising the cost of studded bicycle tyres for employees who cycle to work in icy conditions, an initiative that simultaneously encourages physical activity. Workers whose jobs put them under mental strain are supported and monitored with Firstbeat Lifestyle Assessment measurements, which help employees to recognise stress and identify areas for improvement (physical activity, nutrition, sleep).

Results: Lost-time injuries fell from 116 to 13.9 (per million working hours) between 2005 and 2015. The number of serious accidents resulting in more than 30 days' absence has dropped to one or two per year, with the company aiming to reduce this to zero by 2020. Vocational rehabilitation, typically through retraining, has greatly reduced the costs associated with early retirement. In addition, a culture of prevention has been encouraged in the company, with the number of safety observations logged by employees growing from 18 in 2010 to 1 425 in 2015, partly because of the development of the Safety App.

The case study also illustrates how these measures can also accommodate the needs of older workers who may have specific needs for workplace adjustments. Indeed retaining older workers as the workforce ages is a big challenge for many employers. According to the European Health Interview Survey, older workers are more likely than younger workers to be living with multiple long-term conditions (Figure 4.8). Declining health is the main driver of older workers exiting the labour market before they reach state pension age (SPA) – and many people working with chronic conditions such as rheumatoid arthritis or MS frequently consider stopping work altogether because of their health. Thus, greater focus on chronic disease risk management will be critical, because a higher proportion of the working age population will have work-limiting health conditions.

Figure 4.8. Tackling chronic illnesses will be critical as the workforce ages

Prevalence of persons with a chronic condition by age, European countries, 2014



Note: Comorbidity refers to the self-reported prevalence of at least two chronic diseases among the following: asthma; chronic bronchitis, chronic obstructive pulmonary disease, emphysema; myocardial infarction (heart attack) or chronic consequences of myocardial infarction; coronary heart disease or angina pectoris; high blood pressure (hypertension); stroke (cerebral haemorrhage, cerebral thrombosis) or chronic consequences of stroke; arthrosis (arthritis excluded); low back disorder or other chronic back defect; neck disorder or other chronic neck defect; diabetes; allergy (allergic asthma excluded); cirrhosis of the liver; urinary incontinence; kidney problems; and depression.
Source: European Health Interview Survey.

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In another example, Siemens (Box 4.5) illustrates the benefits of taking a holistic approach to the promotion of well-being at work. The Siemens example illustrates that it is possible to develop support for the complex range of physical and emotional health needs of employees, whether these are attributable to work or not. They also apply to employees at different career and lifecycle stages and support behaviour and lifestyle changes if employees feel sufficiently empowered and motivated to engage. Another important aspect of

the Siemens model is its emphasis on challenging stigma around mental illness and its sensitive approach to encouraging disclosure of mental health problems among employees.

Box 4.5. Case Study – Workplace health promotion in Siemens

Siemens is a German company, founded in 1847. It is the largest industrial manufacturing company in Europe, with a large operation in the United Kingdom employing 15 000 people and with revenue of GBP 6 billion in the last financial year. Its UK operation focuses on the areas of electrification and automation. It is very active in promoting the wider health, safety and well-being of its employees and has five "pillars" to its well-being strategy:

1. Physical activity – including programmes for exercise, sport and relaxation, strengthening motor skills and developing regenerative capabilities;
2. Healthy nutrition – promoting healthy eating through education, skills and personal motivation and by making healthy meals available on site;
3. Emotional well-being – supporting employees' ability to manage change and work and non-work demands, and helping employees to interact well with others and to self-regulate their emotions and psychological well-being;
4. Healthy work environment – helping employees to work effectively in a suitable, well-designed and healthy physical work environment;
5. Medical care and assistance – clinical, ergonomic and occupational health support for prevention and early detection of health problems at work.

Employee engagement surveys among UK employees have previously indicated that some aspects of well-being – especially emotional well-being – required attention and more investment. The Head of Well-being has been working to promote and roll out this integrated approach across the UK business and most recently has been developing new interventions in the emotional well-being and mental health promotion. A core aim at Siemens UK is to put the mental health of employees on the same footing as their physical health. To do this the company has invested in a major programme of Stress Management and Resilience Training (SMART) which is available to all employees and managers through the company's "learning campus".

This training has an educational component (e.g. the biology and psychology of stress) and offers practical tools for employees to monitor their stress levels, build self-awareness, develop "active coping" and learn how to help others. In addition, employees have access to an Employee Assistance Programme (EAP) which offers a range of services including face-to-face counselling.

Results: More than 1 500 employees attended the SMART workshops in the 2017 financial year. 97% of participants said they would recommend attendance to a colleague and 90% reported that they felt better-equipped to manage stress and maintain their resilience. Efforts to improve the take-up of support services for employees with mental health challenges offered by the EAP have resulted in an increase in utilisation from 2-3% to 10-12%, which is high compared to other employers. The company is confident that considerable progress has also been made in the UK business to reduce the stigma surrounding mental illness, which has helped promote disclosure and take-up of a number of emotional well-being initiatives in the business.

Line managers have a crucial role in supporting employees with common mental health problems to remain in, or return to, work and they need effective skills development and training to enable them to do so. A recent 15-country study by (Evans-Lacko and Knapp, 2018[34]) showed that, in the case of employees with depression, "when controlling for country GDP, working in an environment where managers felt

comfortable to offer help and support to the employee rather than avoid them was independently associated with less absenteeism and more presenteeism". As such, Siemens also offers learning modules for managers on how to manage teams in a way which avoids stress at work. The company also offers Mental Health First Aid training and, as part of its Stress and Mental Health Policy, is developing a mental health toolkit for managers which will include an Emotional Well-being Assessment Tool.

Key takeaways

- There is compelling evidence that employers that can adapt and tailor the flexibility they offer to the changing needs of employees through the lifecycle are more able to attract, engage and retain a diverse workforce. This in turn can help respond to the changing needs of customers and clients.
- Evidence suggests that practices to facilitate work-life balance through flexible working practices benefited carers and non-carers alike and can improve staff morale and retention. The COVID-19 crisis has further emphasised the need to support workers with caring responsibilities.
- Good practice to improve access to flexible working time arrangements can include better information and support to employees about their availability as well as setting an example at the senior level in their use. The latter can ensure that some group of workers feel secure to request flexible work without damaging their career prospects in the long-run.
- Teleworking needs to be carefully designed to meet the needs of workers and employers and maximise worker well-being and productivity. This includes ensuring that workers have the instruments to work from home under good conditions as well as planning work organisation, in particular in the case of a second pandemic wave, and training the workforce to make the most of teleworking.
- Simplifying procedures for introducing flexible working arrangements and engaging employers in the business case for flexible working can further support their implementation and take-up of FTWAs at the workplace.
- Workplace health promotion initiatives such a smoking cessation programmes, exercise classes, healthy eating options in staff canteens and other "lifestyle" support interventions have become increasingly common as they are believed not only to improve attendance but also to improve hiring, motivation and retention. Despite these investments, the evidence that these programmes are effective in improving health and productivity is not strong.
- High quality employers recognise the concept of "holistic" well-being, and are concerned for the physical, mental, and social lives of their workers. Thus well-being programmes which reflect a blend of financial, physical and social/emotional programmes need to be woven alongside other lifestyle and fitness interventions.

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5 Maintaining and developing skills of a multigenerational workforce

No other factor influences business performance and competitiveness more than its workers' skills and qualifications. However, persistent inequalities in training offers and take-up by age mean that many older workers are left without right skills to flourish in and prolong their careers. This is disadvantageous for firms: it risks lower productivity from declining performance when not investing in all employees, and the loss of experience as older workers' skills become obsolete and they exit the workforce. A key challenge for organisations is to put the development of employees from all age groups at the forefront of lifelong learning and combines it with a life-phase orientation. This chapter reviews the benefits of and some of the barriers to lifelong learning as well as firm strategies to maximise the diverse skills in the workforce.

Infographic 5.1. Key facts: Skills and training

Skills mismatch is costly for firms and workers

Share of workers reporting mismatch between their existing skills and those required for their jobs.

Training needs a boost

participate in job-related training

Despite the multifaceted organisational benefits, few adults participate in job-related training.

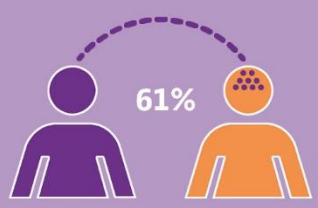
Never too old to train

Participation in training tends to decline with age and over careers, with the risk of workers' skills becoming obsolete.

Career reviews

Mid-life career reviews are useful tools at relatively low cost to help workers take stock of skill gaps and training needs.

Employees of all ages find value in mentoring



Share of workers who say mentorship or being a mentor has been extremely or very important to their career.

Investing in training tools for skills, knowledge and experience transfer

The return of investment in action learning – a training tool for managers - is estimated between 5 and 25 times the actual cost.

Introduction

Economies across the world are facing significant change which is highlighting the importance of opportunities for training to upskill and reskill the labour force. Technical progress, ageing populations, and globalisation are shaping changes in how and where we work (OECD and ILO, 2018[1]). While overall employment has risen gradually across all OECD countries over recent decades and become more inclusive (e.g. rising employment of women and people aged 50+), there has also been a rise in a number of labour market inequalities (OECD, 2019[2]). This is not just in the rewards to working but also in opportunities to prosper in a changing world of work by having the set of skills that matches labour market demands.

Considerable changes in skill demands are being driven by a combination of globalisation and technological change. Globalisation through international trade is making the world ever more connected, drawing together emerging and developing economies and leading, in some cases, to the relocation of some industries to labour markets with lower labour costs. These changes have consequences for changing the skills requirements of regional labour markets and influence creation of specific types of job. Partly driven by greater international competition, the fourth industrial revolution is also bringing radical change with a sharp focus on interconnectivity, automation, machine learning, and real-time data. With the development of Artificial Intelligence (AI), automation becoming commonplace in a broad range of sectors and occupations.

These trends are transforming labour markets, and the content and tasks aligned to occupations. New jobs have been created, whilst at the same time others have been transformed, or become defunct. These changes necessarily have an impact on skills requirements (Sparreboom and Tarvid, 2016[3]). Matching skill demand with supply, is crucial both for enterprises and societies, given that skills are at the heart of productivity levels (Adalet McGowan and Andrews, 2015[4]). This, in tandem with ageing societies, indicates that employers must invest in skills to build resilience. They can no longer rely as heavily on the skills pipeline from initial education in the face of shrinking numbers of younger people joining the workforce and will need to rely more on keeping the skills of experienced workers up to date in the face of longer working lives and mounting skills obsolescence.

Why investing in skills makes sense

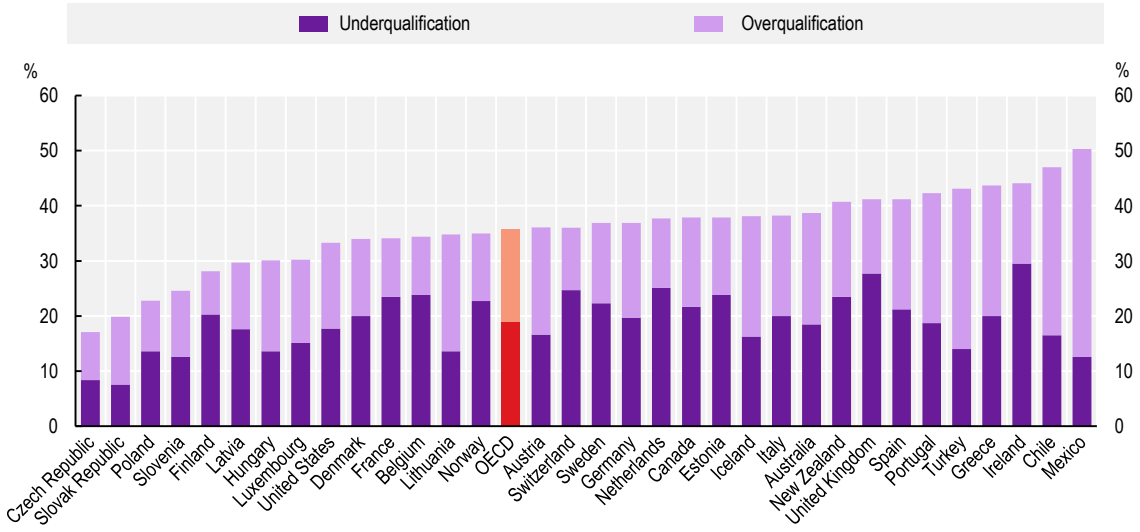
While technologies are automating some jobs and replacing some tasks within other jobs, aspects of work focused on social-interaction skills are becoming increasingly important (OECD, 2019[2]). However, these changes in skill demands have not been fully reflected in the supply of skills in the workforce and consequently many employers – prior to COVID-19 – were facing skill shortages, particularly in respect of cognitive skills but surpluses of routine and physical ability skills. According to the OECD Skills for Jobs database 2018, more than five out of 10 jobs that are hard-to-fill (i.e. in shortage) are found in high-skilled occupations. These jobs range from managerial positions to highly skilled professionals in the health care, teaching or ICT sectors.

Skills shortage refers to hard-to-fill vacancies, where employers struggle to secure the skills they need amongst applicants whereas skills gaps focus on the skills already inside the business, where changes to job requirements change the skills mix needed. For firms, skills gaps reduce productivity and increase staff turnover, whereas skills shortages increase recruitment/hiring costs and delay or stall the adoption new technologies, which again has implications for productivity (OECD, 2017[5]). In contrast, skills mismatch focuses on the individual and denotes where workers possess a level of qualification that is higher or lower than those required by their job. According to a multi-country analysis, on average, the total skills mismatch across the OECD amounts to 35.7%, with slightly more workers reporting they are under-skilled (18.9%) than over-skilled (16.8%). Some countries face greater skills mismatch than others

(Figure 5.1). Both under-skilling and over-skilling result in high costs to firms and society (Adalet McGowan and Andrews, 2015[4]). Similarly, the World Bank's Enterprise Survey (Almeida, Behrman and Robalino, 2012[6]) shows firm performance is affected when workers do not have the right skills.

Figure 5.1. Human capital is underutilised in many OECD countries

Percentage of workers with skills mismatch, by qualification level, 2016



Note: Mismatch by qualification level is calculated by comparing individuals' qualification level to that most commonly observed in their occupation. Qualification mismatch arises when workers have an educational attainment that is higher or lower than that required by their job. If their education level is higher than that required by their job, workers are classified as over-qualified; if the opposite is true, they are classified as underqualified. OECD is an unweighted average of the countries shown.
Source: OECD Skills for Jobs Database, https://stats.oecd.org/Index.aspx?QueryId=77595#.

StatLink https://stat.link/tvfx7i

Combine these factors with demographic changes and it is clear that a sole reliance on recruiting in skills may not always be a feasible strategy. Population ageing is also leading to a wider range of ages and life-stages in the workforce. And while this diversity of experience, generations and skills can add value, it also has implications for skills. Younger generations, sometimes called "digital natives" have grown up with information technology as a part of everyday life but because they have less workplace experience, their social-interaction skills can be less well developed; in contrast, older generations may face a steep learning curve to adapt to the changing skills requirements but also hold valuable expertise and experience. Lifelong learning opportunities within the workplace can build skills across the talent pool and facilitate a more innovative and productive economic environment for organisations. Training can also support skills and experience transfer between workers of different ages and life-stages, again building resilience for businesses. Alongside harnessing the capabilities of a more diverse talent pool, it is therefore imperative that employers ensure their employees are equipped for the changing nature of work.

Advantages of an all-age training policy

The evidence shows there are advantages to upskilling and reskilling employees for employers; specifically, that workforce training is a key element of success. Huselid and Becker (2011[7]) argue that focusing on a skilled talent pool of employees is the optimal way for organisations to maintain sustainability. Kraiger (2003[8]) and Noe (2010[9]) demonstrate that the most successful organisations spend more on developing their employees. Four key domains have been identified through which lifelong learning and training improve overall organisational performance (Almeida, Behrman and Robalino, 2012[6]; European Commission, 2018[10]; Salas et al., 2012[11]).

- **Skilled workforce** – said to be the crux of organisational performance as it is imperative for organisations to have access to generalised and job-specific skills. Evidence also shows that a skilled workforce is better able to adapt to changing work environments.
- **Productivity and efficiency**: employee training leads to more efficient work practices and higher productivity levels. Reducing costs by eliminating inefficient work practices leads to competitive advantage. Developing skills, knowledge, and attitudes that enhance employee performance leads to higher productivity.
- **Innovation**: a gap in crucial/essential skills can lead to a delay in the development of new products and/or services. Training leads both to a better allocation and performance of tasks, which in turn affects innovation performance, and increases the likelihood of organisations performing well in highly competitive economic environments.
- **Motivation**: offering training and development opportunities makes organisations attractive ("employers of choice") and improves the organisational culture. High levels of employee engagement and commitment to organisations lead to lower staff turnover costs.

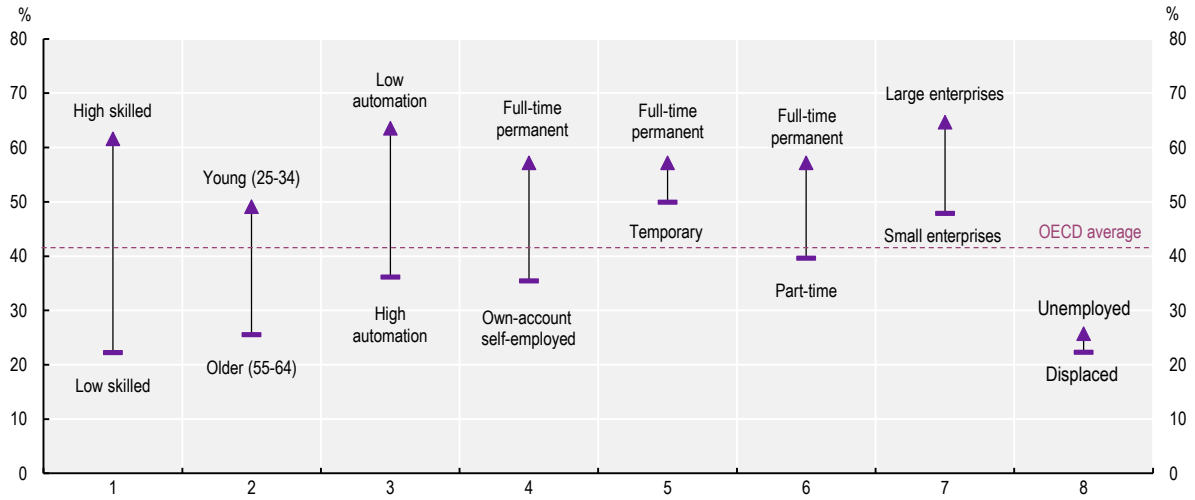
Despite the range of organisational benefits can bring, participation in job-related training is low

According to the OECD's International Assessment of Adult Competencies skills survey (PIAAC), only around 40% of adults participate in job-related training in any given year, on average, although there are large country differences. Importantly for the multi-generation and life-stage workforce, there are disparities in access to training by different demographic and work contract factors (Figure 5.2):

- Individuals with lower skills level receive less training from employers, compared to individuals with higher skills levels.
- A higher share of younger individuals (25-34) participate in job-related training compared to their older counterparts (55-64).
- A higher share of full-time employees report job-related training, compared to those working part-time and those on temporary contracts (as well as self-employed individuals).
- Employees in larger organisations (+250) are more likely to participate in training at work than those in small and medium enterprises (SMEs).

Figure 5.2. Participation in job-related training by group, OECD average

Share of adults (16-65) in each group that participate in training, 2012/2015



Note: Share of adults who participated in formal or non-formal job-related training over the previous 12 months. Data refer to 2012 for most countries, except for Chile, Greece, Israel, Lithuania, New Zealand, Slovenia and Turkey where they refer to 2015. Low (high) skilled refers to adults who score at level 1 or below (levels 4 or 5) on the PIAAC literacy scale. High (low) automation refers to adults at high (low) risk of automation. Own-account workers are the self-employed without employees. Temporary refers to workers on fixed term or temporary work agency contracts. Part-time refers to adults who work less than 30 hours per week. Full-time permanent are adults in full-time jobs with an indefinite work contract. Unemployed refers to all unemployed who have not been dismissed for economic reasons in their last job; displaced refers to unemployed adults who have been dismissed for economic reasons in the last job. Large enterprises have 250 and over employees. Small enterprises have less than 250 employees. The OECD average (41%) refers to the unweighted average participation in job-related training among all adults among OECD countries participating in the Survey for Adult Skills (PIAAC).
Source: Survey of Adult Skills, PIAAC, https://www.oecd.org/skills/piaac/.

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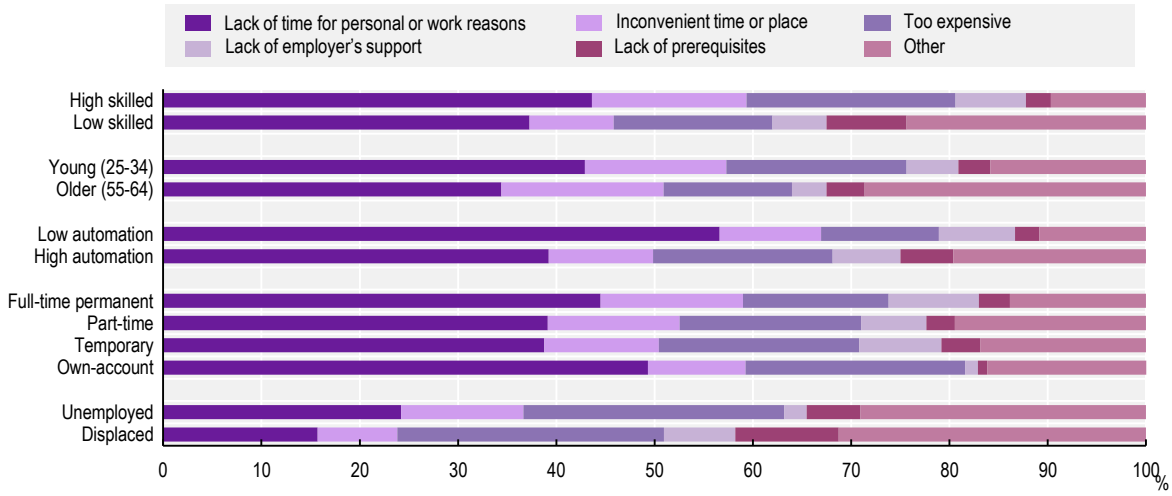
One explanatory factor is the varying national contexts and systems including policies for initial and continuing vocational education. It does not simply reflect a lack of interest in training as there are many workers in all countries who wish to pursue training or education, but who do not do so. Reasons for this range from lack of time due to work, to lack of financial resources, and a lack of support from the employer (Figure 5.3).

Figure 5.3. Reasons for not training, by group, OECD average

Reasons for not training among adults who did not train but would have liked to, by group, 2012, 2015



Note: Share of adults who participate in formal or non-formal job-related training over the previous 12 months. Data refer to 2012 for most countries, except for Chile, Greece, Israel, Lithuania, New Zealand, Slovenia and Turkey where they refer to 2015. Low (high) skilled refers to adults who score at level 1 or below (levels 4 or 5) on the PIAAC literacy scale. High (low) automation refers to adults at high (low) risk of automation. Own-account workers are the self-employed without employees. Temporary refers to workers on fixed term or temporary work agency contracts. Part-time refers to adults who work less than 30 hours per week. Full-time permanent are adults in full-time jobs with an indefinite work contract. Unemployed refers to all unemployed who have not been dismissed for economic reasons in their last job; displaced refers to unemployed adults who have been dismissed for economic reasons in the last job. Lack of time for personal or work reasons refers to lack of time due to "being too busy at work" or due to "childcare or family responsibilities".

Source: OECD (2019[2]), *OECD Employment Outlook 2019: The Future of Work,* Figure 6.7, https://doi.org/10.1787/9ee00155-en.

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This is a challenge for workplace learning initiatives. On the one hand, those less likely to be trained are also the most at risk for global trends such as automation, as shown in the study of (Nedelkoska and Quintini, 2018[12]). On the other hand, those who are already well equipped receive the most training and thereby their resilience within the organisation is further increased.

The risks for the multigenerational, multi-life-stage workforce are that employees are developed only when they are young and their skills are allowed to depreciate over time, meaning that as they age, employees and particularly lower skilled employees do not receive the training that enable organisations to adapt. Moreover, commentators agree that without further development many skills have a shelf-life, a critical amount of time before they become obsolete. In this context, it is important to continuously develop skills of workers, regardless of the life-phase. It also provides a further argument that the trend to offer less training opportunities to older workers needs to be countered. Working lives are being extended all across Europe; even when an individual is in the final stage of their career, they will still be in work for those years when their skills are most at risk of becoming obsolete. They too, as well as organisations, still benefit from training opportunities (McGill and Beaty, 1992/2013[13]; Newton et al., 2005[14]; Rosenberg, Heimler and Morote, 2012[15]). Additionally, there is high quality evidence that captures the impacts that training older workers can have. Berg et al. (2015[16]) examine the relationship between training, wages and inclination to retire by gender. They find that training has a direct impact on the retention of women in work, and particularly in supporting the advancement of those in lower wage jobs. The effect for men is somewhat different and a causal relationship was not established. In contrast, Boockmann, Fries and Göbel (2012[17]) find that being part of a mixed age team can support the retention of older employees in work, but that training alone is not sufficient to achieve this.

By not having an all-age training policy the needs of some workers are overlooked, with risks to the company. In determining who needs training, the evidence suggests that the needs of lower skilled workers, older workers and those on part-time or temporary contracts require key consideration. For older workers, the greater elapsed time since leaving full-time education can be an informative factor in making decisions on training needs.

In terms of taking generational differences into account in the design of training programmes, the evidence is mixed. Reeves (2007[18]) based on a review of educational research finds "virtually no research-based findings or evidence drawn from robust learning theory that supports the differential effectiveness of different instructional designs or strategies across the generations. Nor is there a compelling case for the development of a new instructional design model to accommodate generational differences". In contrast, Sibaran et al. (2015[19]) find an influence of generation on informal self-directed and team learning and believe that "understanding generational differences will enable individuals to learn informally and create a conducive team climate that will lead to effective informal team learning". This perhaps emphasises the importance of a learning culture within organisations that appreciates the different contexts and circumstances of individuals. For workers of all ages, it is important that training builds on existing skills and has a direct link with enhancing career prospects; it is also important that it is tailored to the learning needs of each person. For some, especially more experienced workers, "hands-on" training or workplace-based training may be more effective than classroom or more theoretical training.

Workplace training policies and practices for optimising the benefits of a multigenerational workforce

Companies deploy a wide range of approaches to training the workforce, which reflect the need for more tailored approaches to training that take account of the different learning needs and styles of a diverse workforce (Table 5.1).

Table 5.1. Table on firm-level training strategies

Job enrichment	Successor-/assistance positions
Job enlargement	Project work
Working team	Quality circle
Job rotation	Presentation
Brainstorming	Role play
Planned instruction/initial training	Overtaking proxy tasks (substituting colleagues)
Introduction of new staff members	Team building
Internship	Team training
Training courses	Semi-autonomous team
Case study	Trainee programme
Group counselling interview	Practice firms
Group dynamic approaches	Behaviour training
Conference, workshop/symposium, trade fair	Workshop
Career planning	Audio-visual training
Teaching conversation	Simulation (virtual reality, computer-assisted
Learning workshop	instruction, programmed instruction, business games)
Mentoring, coaching	e-learning
Appraisal interview	Action/active learning

Source: Cedefop (2015[20]), "Work-based learning in continuing vocational education and training: policies and practices in Europe", https://www.cedefop.europa.eu/fr/publications-and-resources/publications/5549.

The rest of the chapter provides an overview of selected training practices[1] and their effectiveness in optimising the benefits of a multigenerational workforce. Few, if any studies, have tracked the impact of training on the bottom line in terms of firm profitability or competitiveness given the difficulties of teasing out the impact of training from the many other factors that play a role. Instead, evaluations and assessments of effectiveness tend to focus on what may be considered intermediate measures of employee engagement and individual productivity. While there may not be evidence of causal links between these intermediate outcomes and the organisational success, this is what commonly employers measure which indicates their importance from employers' perspectives. Finally, it is important to understand that practices aimed at enhancing employees' competences should not be one-off, but rather form a continuous part of organisational practice. As such, the literature recommends that training practices are embedded in a "training framework" (Salas et al., 2012[11]) (Box 5.1).

Box 5.1. The training framework consists of three components:

- **Prior to training**: an analysis of the organisation's and individual's needs in terms of skills, knowledge, and attitudinal competences. A careful balance between these two perspectives is important: research demonstrates that where employees are able to influence the decision-making process for a training intervention, they are more positively disposed and receptive to it (Baldwin, Magjuke and Loher, 1991[21]).
- **Training intervention:** besides using the appropriate training strategy, it is important to ensure employees are "bought in" to the advantages of training; the evidence suggests that employees need to have the "right mindset" and to achieve this, employers need to build trainees' self-efficacy, promote a learning orientation, and bolster motivation to learn.
- **Evaluation of training:** on completion of training, best practice suggests a need to analyse whether the learning objectives have been met and if this has had an impact on work performance. This enables modifications to training practices to ensure their effectiveness.

Source: Salas et al. (2012[11]), "The Science of Training and Development in Organizations", http://dx.doi.org/10.1177/1529100612436661.

The starting point to an all-age training policy: identifying organisational and individual training needs

To encourage training across the life-course, tools that enable organisations to understand employees' current competence, capability and aspirations are important. These can take various forms, depending on the type of firm and characteristics of their workers, and focus on both individual and organisational level development needs and approaches. From the life-course perspective, regularly reviewing skills and work tasks, as well as capability for current and future roles, enables the organisation to motivate and maximise the deployment of staff in different contexts. Below section sets out some of the tools organisations can use for these purposes.

Identifying training needs helps to focus employers' investment and ensure money is well spent

Conducting a training needs analysis (TNA) can underpin effective implementation of an organisation's training strategy. The TNA identifies who needs to be trained, in which skills, and the best approach to meeting this need (Salas et al., 2012[11]). Three strands of analyses feed into a TNA: job-task,

organisational, and person analysis. These analyses should happen in parallel, to ensure interaction between the components.

- The job-task element maps employees' skills to those required by their job, with a clear distinction drawn between what an employee "needs to know", as opposed to what they "need to access". Since individuals do not have unlimited capacity to retain information, training strategies should focus on the skills, competences and knowledge necessary to perform the job well, and separately on the resources available to them to support them in their work. Additionally, cognitive task analysis – an examination of how people think, organize and structure information, and how they learn – can be beneficial for knowledge-based jobs. The job-tasks analysis can assess the skills needed at team level exploring how job-tasks are taken forward within a team, and the shape of effective team in this context (Salas et al., 2012[11]).
- The organisational needs analysis identifies the skills, jobs, and/or functions that are most critical to the organisation's success. Training needs are prioritised based upon the core-business of the organisation. This part of the TNA explores the "*organisational environment*", i.e. the limiting and enabling factors for rolling out an effective training strategy. Research has shown that this can be beneficial to employees' positive perception of, and commitment to and engagement in training interventions (Salas et al., 2012[11]).
- The person analysis seeks to ensure that employees are prioritised for training based on their skills needs as assessed by the job-task assessment ensuring those with skills gaps receive training so they are fully competent and productive. This assessment can take account of the preferred learning styles of prospective trainees, to help maximise training effectiveness. This part of the TNA therefore encourages a strong alignment between training content and methods, and the individual (Salas et al., 2012[11]).

A training needs analysis is useful, especially when training can be associated with high costs in respect of workers' time. The TNA helps to focus employers' investment and ensure is money well spent. This helps to ensure that training and learning opportunities that are offered have a positive impact on organisation performance, as well as employee engagement, and staff retention (Thales Group, 2020[22]). It is also relevant for small and medium-sized enterprises where some form of TNA occurs even if informally and where advice could be useful in making this process more explicit.

Mid-life career reviews

For mid-career and older workers, the mid-life career review (MCR) can play an important role in extending working lives. An MCR aims to assess to which extent the job still matches the worker and identify any actions needed to bridge the gap. Various aspects of working life are taken into account via a holistic approach, ranging from individual characteristics and the physical and psychological ability to perform a particular job, to the financial situation of the worker and adjustment strategies. The ultimate objective of MCRs is to increase the workers' employability. They are viewed as an important tool to extend working lives, especially in light of rapid population ageing. A pre-requisite is that an MCR takes place before the physical and psychological deterioration of a worker, when a professional reorientation is still viable. The literature indicates that conducting an MCR around the age of 40 to 50 is the ideal moment. The anticipatory nature of mid-life career reviews enables employers and employees to act in a timely and flexible manner on careers from a life-cycle perspective (Center for Ageing Better, 2018[23]; Eurofound, 2016[24]).

Although MCRs are regarded as a useful tool, not many countries have rolled out a national MCR programme although some pilots have been undertaken. Additionally, the format and content of MCRs can vary by country approaches in terms of funding, targets, outcomes, and ownership making their effects difficult to compare (Eurofound, 2016[24]). Because of this, the evidence finds costs associated with a mid-life career review to be variable. In the United Kingdom example, it was estimated that mid-life career

reviews cost between GBP 50-350 per client, and have a positive impact on both "clients" (i.e. employees) and employers. These impacts included an increase in motivation and confidence levels in the individual, as well as increased take-up of training and learning opportunities. Employers gained a more motived workforce, resulting in higher productivity.

While an MCR looks into the changes an employee needs to remain optimally effective in work, the results of MCRs spurred some employers on to apply an organisational perspective to their skills deficit (Eurofound, 2016[24]; NIACE, 2015[25]), (Box 5.2).

Box 5.2. Career Planning & Training of Older Workers in Solystic (France)

Solystic is a French company which specialises in the design, manufacturing, marketing and installation of automatic postal sorting and distribution equipment. Workers at Solystic are employed in manufacturing, installation, trade, design studies, engineering, marketing, programme management and support services such as human resources (HR), finance and information technology. Of the 450 staff employed, 58% are aged over 45 and 37% have more than 20 years of experience in the company. Market forces which reduced the demand for postal equipment, as well as demographic changes within the company, have meant that Solystic needs to retain its older employees.

Career management & training for older workers

Solystic introduced a number of practices aimed at increasing career longevity and to maintain the employability of workers as they aged. This was both to retain experience and knowledge within the company, and also to enable older workers to end their careers in good health.

- All workers reaching the ages of 45, 50, 55 and 60, and all workers over the age of 57 who request it, can meet with HR for career discussions (entretien de deuxième partie de carrière) which are separate from their annual appraisal. Here, they can discuss their current working conditions and review their career prospects. Standardised procedures agreed with social partners mandate discussion of working conditions, workload, physical capacities and restraints, commuting time, issues related to workstations, and their career prospects and desire for change. The meetings have concrete outcomes, such as work-time arrangements, adaptations of workstations, training and career development.
- All requests from employees over the age of 55 to move from full-time to part-time work are carefully considered, with an agreement that at least 50% of these requests will be accepted. For older workers changing to part-time work, the company covers the wage gap up to 80%, guaranteeing that pension entitlements will not be lost for these employees.
- Vocational training, mentoring and the transition between employment and retirement are all considered by Solystic to be important issues for the well-being of older workers. A minimum of 30% of workers over 50 are offered technical skills training to ensure continued employability. All employees over 55 who wish to retire progressively and continue working part-time are permitted to do this.
- In the space of four years the proportion of older workers requesting a career discussion increased from 20% to almost 80%, and all requests for part-time working have been approved, as have many other requests for other forms of flexible working.

Self-identifying training needs

Personal and professional development plans (PDPs) encourage the individual to take control of their training needs. These are plans made by and for employees, usually working with their line managers, which set out a course-of-action to develop the individual in line with their goals and aspirations, alongside the requirements of their job. These plans may identify helpful training programmes but development may result from other approaches including on-the-job learning, interim appointments and job shadowing. In theory, PDPs can go beyond the needs for the current job, and can involve wider needs for the individual (Tamkin, Barber and Hirsh, 1995[26]). PDPs should be carried out regularly, steering development, but should also be guided after appraisals (Beausaert, Segers and Gijselaers, 2011[27])). PDPs can have various purposes, such as professional development, reflective learning, encourage confidence levels etc. (Beausaert, Segers and Grohnert, 2014[28]). The literature is inconclusive about the effectiveness of PDPs: some researchers have found a positive impact on performance and learning opportunities, whilst others found it made no difference (Beausaert, Segers and Gijselaers, 2011[27]; Beausaert et al., 2013[29]). However, there are indications that the PDPs success stands or falls with the context wherein the PDP is implemented. Both organisational, as well as individual conditions come into play here. It is crucial that line managers, but also other colleagues as well as HR personnel are supportive of personal development planning. Both feedback on the PDP and future outlook, in a timely and constructive manner, are paramount to its success. A PDP ought to have clear goals, be well-structured, and have useful guidelines. Lastly, a PDP embedded in an organisational learning environment makes it not another check-box exercise, but rather a practical tool (Beausaert, Segers and Grohnert, 2014[28]). These contextual factors spur motivation, perceived feasibility, and a reflective stand towards PDPs amongst workers.

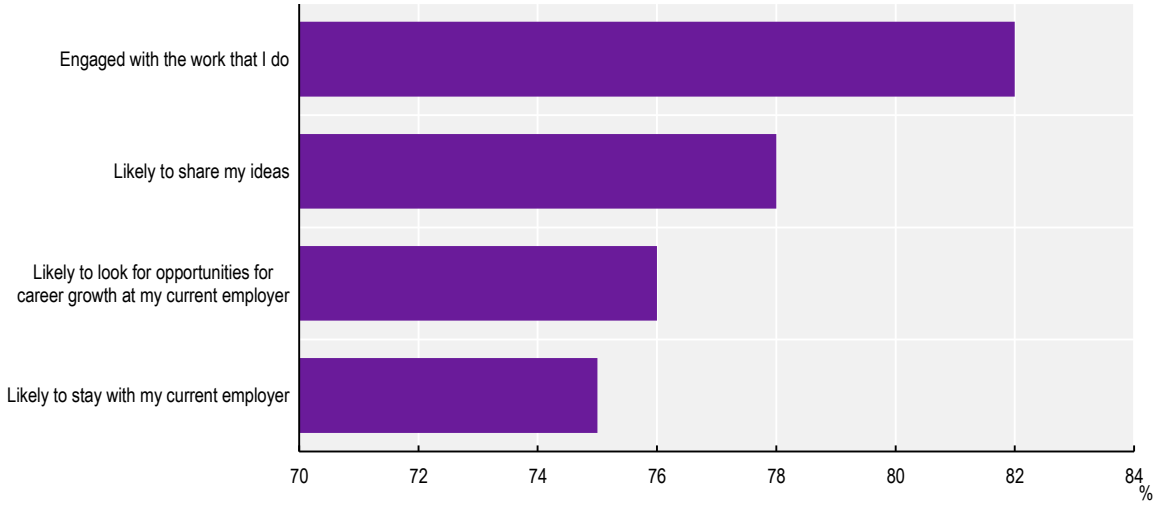
Career conversations

Career conversations (CC) are similar to PDPs in respect of their aims. They are a means to steer an individual to work opportunities that help them build towards their goals, whilst at the same time the organisation benefits by helping career development, which in turn is a motivating action (Evans, 2016[30]; Kidd, Hirsh and Jackson, 2003[31]). The aim is for mutual benefits to emerge, given that the personal development path of the employee can be aligned with the organisation's corporate goals, and vice versa (Borgen, Butterfield and Lalande, 2013[32]; Evans, 2016[30]).

There is no single definition or set of attributes to career conversations accepted by theorists and practitioners. However some characteristics that consistently appear throughout the literature are discussion of: (i) career management, (ii) skills and performance, (iii) potential trajectories within the organisation, (iv) training possibilities, (v) mentoring possibilities, (vi) and setting up an action plan (Borgen, Butterfield and Lalande, 2013[32]). It is clear that career conversations as such do not lead to personal development. Rather, through the conversation, actions plan and other ways to grow in competences and abilities are devised. The evidence suggests that organisations gain substantially from investing in career conversations – this practice can lead to opportunities for employees to grow in their role, gaining skills valuable skills that are an asset to the organisation. The underlying theory is that a better alignment between the job and the skills means a better allocation of human capital within an organisation (CIPD, 2005[33]). It can also lead to greater employee engagement and motivation (Figure 5.4).

Figure 5.4. Career development talks lead to higher work engagement

If career conversations were more regular I would be more…



Source: Right Management, (2016[34]), *Talk The Talk: How Ongoing Career Conversations Drive Business Success: Increase Employee Engagement And Performance By Embedding Ongoing Career Conversations Into Your Organizational Culture*.

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The corporate approach to skills and talent development at Rolls Royce illustrates that active engagement of senior leadership, HR, line managers and individuals can help the firm nurture and retain vital knowledge of older workers and ensure they have the chance to enhance their skills and work in teams where knowledge transfer is encouraged (Box 5.3).

Box 5.3. Rolls-Royce: Development Cells and Skill Owners

Rolls-Royce plc operates in four global markets: civil aerospace, defence aerospace, marine and energy. Career development is seen as being central to both skill deployment and employee development. Career paths take place in three dimensions: market-facing businesses, functions and geographical locations. Line managers have a responsibility to be proactive in the skill and career development of their staff. Managers work with each other on this agenda through a process called "Development Cells". At a Development Cell meeting, leaders and their teams collectively review the potential and capability of their people against business needs. The top-level development cell, led by the CEO, focuses on the corporate succession process and is linked with high-level business reviews.

Development Cells at all levels examine skill needs and identify people who need a job move or some particular development. What is unusual is that they drill this proactive development approach right down through the whole managerial and professional population, not just young, high-potential talent. The aim is to establish a strongly developmental environment that is both business-focused and interested in each individual regardless of background or age. There is a strong emphasis on training and development, encompassing leadership and business skills as well as technical expertise and product-specific know-how, which often resides in its longer service and older employees.

Skill and career development within functions is strengthened by the activities of Company Skill Owners. In the engineering function, where Skill Owners are well established, 21 Skill Groups have been identified, each with a Skill Owner. These are the leading authority in their skill for the company globally.

They are charged with being "a driving force in the development of professionals" and are deeply involved in both skill development and career development from graduate recruitment up to the highest levels of older and more experienced employees.

Skill Owners are linked into relevant development cells, where they work jointly with line managers. Alongside these management-led review processes, individuals are encouraged to take responsibility for managing their own careers. They are supported by the line, and by self-help career planning tools and an open internal job market. HR offers direct support to both employees and line managers. There is an obvious need to link the Development Cell discussions to the individual employees they cover. Managers have this responsibility. Some employees are proactive in this by, for example, booking discussions with their manager when they know a Cell meeting is coming up, and asking for feedback afterwards.

As the company generates as much profit from servicing existing products as manufacturing new ones, the know-how and experience of its older workers is a major business asset. This corporate approach to skill and talent development helps to "curate", nurture and retain this vital knowledge and experience and ensures that older workers have the chance to enhance their skills and work in teams where knowledge transfer is encouraged.

Systematic approaches to learning about other jobs and roles

These training practices aim to improve workers' understanding of tasks performed across the organisation through delivering experiential learning opportunities. This leads to increased understanding of the contribution of various roles to the end product or service. On top of that, these practices transmit knowledge from younger generations to older generations, and vice versa. Bottom-line, this supports intergenerational cooperation (Veingerl Čič and Šarotar Žižek, 2017[35]). Flinchbaugh, Valenzuela and Li (2016[36]) add that these practices are "*an intentional managerial focus on the unique skills and preferences of the distinct generations can create a complementary patchwork of overlapping, interconnected skills that can facilitate improved knowledge sharing across employees of any age*".

Job rotation programmes can enable the transfer of knowledge between more experienced and early career employees

Job rotation entails the movement of workers between jobs or projects, i.e. the lateral transfer of workers between workstations and tasks, where workers are obliged to use different skills and responsibilities. The theory is that on transfer, the worker learns a new set of skills thereby extending their skills and knowledge of processes across the organisation, which in turns builds individual and organisational resilience (Azizi, Zolfaghari and Liang, 2010[37]).

Job rotation is perceived as a practice to build a multi-skilled workforce or to ensure functional flexibility (De Spiegelaere, Van Gyes and Van Hootegem, 2013[38]; Kalleberg et al., 2006[39]).[2] A key characteristic of job rotation is that employees rotate through a series of roles on a temporarily basis; and not return immediately to their former role – rather the rotation continues (Casad, 2012[40]). This is in contrast to cross-training, where employees temporarily take on a different job to balance high demand and lack of resources/capacity.[3] Job rotation has been implemented across a wide range of sectors, from manufacturing enterprise to health care settings and in engineering businesses; as such it is a well-tested practice (Campion, Cheraskin and Stevens, 1994[41]; Richardson et al., 2003[42]; Eriksson and Ortega, 2006[43]; Ollo-Lopez, Bayo-Moriones and Larraza-Kintana, 2010[44]).

As a training practice, job rotation integrates work and learning and can be formal or informal, and structured as well as unstructured. It is seen as an effective approach to enhance employees' abilities and has been implemented across a wide variety of organisations with different skills needs and purposes. For instance, it is used in manufacturing industries to develop competences amongst workers on an assembly line with aims to achieve greater agility within employees for task flexibility. Similarly, it has been used in office-jobs, where it is a learning tool to develop a brood understanding of all aspects of the business. It diffuses various facets of an enterprise's organisational culture between workers, is viewed as particularly useful as a career development practice (Eriksson and Ortega, 2006[43]) and enables the transfer of knowledge between more experienced and early career employees. The evidence suggests that job rotation is relatively inexpensive and leads to "flexibility in workforce planning, potential for increasing innovation and culture building, and providing crucial information about individual's strongest attributes for succession planning" (Casad, 2012[40]).

Through job rotation, employees familiarise themselves with various job tasks gaining technical and practical work skills applicable throughout the organisation and thus the versatility and competence to handle multiple functions. Job rotation is a prime example of on-the-job training, with immediate applicability given that it addresses challenges related to the immediate workplace (Sekerin et al., 2018[45]). Through these positive individual outcomes, impacts are achieved for the business in terms of better organisational performance and productivity (Oparanma and Nwaeke, 2015[46]). It also protects organisations from shortages in organisational capacity due to absenteeism or turnover (Kalleberg et al., 2006[39]).

However, job rotation has limitations that include employee perceptions of lost knowledge. Negative views can emerge of additional workload which can lead to dissatisfaction and decreased productivity (Campion, Cheraskin and Stevens, 1994[41]). There are also risks that job rotation can also lead to loss of knowledge by removing an employee with crucial knowledge and connections to other departments (Casad, 2012[40]). Lastly, a good person-job fit is paramount – if employee motivation is lacking, the benefits of job rotation will not materialise. These factors all suggest the need for carefully considered implementation and clear sight lines on skills and skills transfer across the organisation. Where implementation is strong, links are found between job rotation (functional flexibility) and organisational innovativeness and productivity in various national contexts, industries, and firm-size. In respect of the multigenerational workforce, this multiskilling builds resilience and should enable organisations to support flexible working practices that enable the retention their skilled workforce across different stages of the life-course.

Job shadowing

Job shadowing is a training measure that is also viewed as easily implemented and relatively low cost. Again, it focuses on skills and knowledge transfer between employees. It involves on-the-job training i.e. in the real world work environment. The concept is defined as "a trainee closely observing someone perform a specific job in the natural job environment for the purpose of witnessing first-hand the detail of the job." (Martin, Kolomitro and Lam, 2013[47]). This training measure is ideal for both junior employees, as well as those more senior. The programme adds value most where an existing workers is being trained up for a new role in the company, or where the organisation is seeking a low-risk mechanism to test the capabilities of an existing employee for a new role. Since job shadowing is short-term and the experienced employee continues to perform the role, it removes risks and costs of failure that can be associated with job rotation.

Nevertheless, HR practitioners have argued that it is particularly useful when an employee will move on to another job internally. To be successful in its implementation, job shadowing should consist of more than just watching alongside the side lines. The "shadowee" should be expected to take on the role of coach/mentor, and guide the "shadower", provide feedback and evaluate the latter's performance (Jaworski et al., 2018[48]). These authors find job shadowing to be a cost-effective training mechanism – individuals prefer the one-on-one approach and as this is delivered via the existing worker leading their

existing job, costs are relatively low. Notably, employees expressed increased satisfaction with this training mode, which in turn led to their increased commitment to the job and organisation.

Leveraging relationships between employees to deliver development

These approaches set up one-to-one relationships between workers of different levels of seniority or of different ages, in order that experience and knowledge from one can be used to help the development of the other. It should not be assumed that these focus solely on experienced-to-inexperienced or older-to-younger knowledge transfer; some companies are using these approaches to maximise skills and knowledge across generations, appreciating that each brings different and valuable skill sets.

Mentoring and coaching programmes can help bridge generational divides

Mentoring and coaching as devices to develop skills and competences in the workforce are amongst the most widespread tools in talent management. An estimate from 2009 indicated that 70% of the Fortune 500 companies in the United States have a mentoring programme, (Bridgeford, 2007[49]; Sekerin et al., 2018[45]). It has been argued that coaching and mentoring are valuable in a context of increasing uncertainty and insecurity, especially in a context of an economic or health crisis, where employee morale is low and stress levels surge. Communicating the mentoring and/or coaching offer adequately and effectively is extremely important in order to build positive employee engagement with this offer, as the evidence indicates these mechanisms result in employees feeling supported and valued (Trenner, 2013[50]).

There are no single definitions of coaching and mentoring across disciplines. Nonetheless, researchers have tried to disentangle the two concepts which are often used interchangeably. Although there are strong similarities, there are also differences. For example, mentoring is less formal and longer-term than coaching. It is often more concerned with career development and progression, hence has a stronger focus on the needs of the individual. In contrast, coaching focuses more on specific skills and job performance. In other words, coaching is not only about the personal growth of the individual but also about the needs of the enterprise (Passmore, 2007[51]). Nevertheless, they are similar in that both involve an intense interpersonal relationship. Mentors/coaches may be drawn from within the organisation (internal), or from outside (external). A benefit of both mentoring and coaching is that both the mentor/coach and mentee/coachee have agency to shape the relationship that takes forward learning objectives agreed by the organisation.

As with job rotation and job shadowing, setting up mentoring and coaching programmes can relatively low in cost, making it an apt tool for businesses in highly competitive business environments (CIPD, 2014[52]). As such, various evidence shows the wide uptake of these mechanisms: across various industries, such as health care, telecom, financial services, and education in the United States (Ellinger et al., 2010[53]). In the United Kingdom, the CIPD suggests that 86% of companies across sectors used coaching in 2011, with larger companies being more likely to have a coaching programme (89%) (CIPD, 2011[54]). Specifically, these practices have been deployed by companies including:

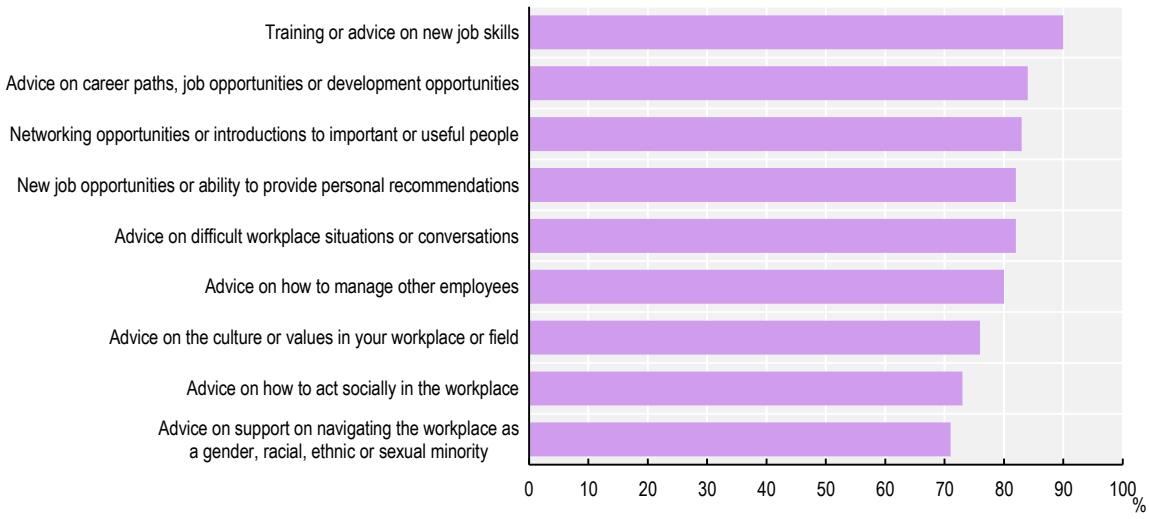
- **Sodexo** which used mentoring as a means to deliver opportunities for employees to develop their skill sets and advance their careers. A web-based platform enabled employees to identify mentoring partners and to be part a virtual community to facilitate peer learning.
- **Hartford** used mentoring programme to connect the senior leadership with early career entrants with technical skills to share.
- **Bon Secours Virginia Health System** uses formal and informal mentoring programmes across its workforce of 14 000 employees, ranging in age from 18 to 93. From this, each year it identifies

75 “high potential” employees who are 35 or younger and pairs them with senior executives in order to advance their development (Hymowitz, 2018[55]).

Research has shown that there are outcomes from coaching and mentoring at both the individual and organisation level, and that these outcomes are interconnected and reciprocal Figure 5.5. For the employee, coaching and mentoring nurture: a better balancing of work and personal life (Gegner, 1997[56]) improved psychological and social competences (Wales, 2002[57]); improved and enhanced career development; improved self-awareness and assertiveness (Bozer, Sarros and Santora, 2014[58]; Gatling, Castelli and Cole, 2013[59]; Wales, 2002[57]); increased self-confidence (Wales, 2002[57]); better developed relationships/networks/interpersonal skills (Wales, 2002[57]); improvements to setting and achieving goals (Smither et al., 2003[60]); increased role clarity (Kim et al., 2013[61]; Sonesh et al., 2015[62]); and changing behaviours (Blackman, Moscardo and Gray, 2016[63]; Grant, 2005[64]; Wasylyshyn, 2003[65]).

Figure 5.5. Aspects of mentorship most valued among mentees

Percentage saying “extremely” or “very” valuable to job or career



Source: Anderson (2019[66]), Mentorship and the Value of a Multigenerational Workforce, https://doi.org/10.26419/res.00270.001.

StatLink https://stat.link/wmztrj

At the organisational level, mentoring and coaching programs are found to increase productivity (Olivero, Bane and Kopelman, 1997[67]); build a gateway for supporting other training programs (Wales, 2002[57]); improve communication (Graham, Wedman and Garvin-Kester, 2008[68]), and improve the effectiveness of organisations or teams (Blackman, Moscardo and Gray, 2016[63]; Hagen and Gavrilova Aguilar, 2012[69]).

Typically, mentoring and coaching nurture uniquely human skills often referred to as”soft skills”. Nevertheless, they are also seen as important as the practical and technical skills employees need to perform well.

As with any training measures, there are enabling and limiting factors around coaching and mentoring. Blackman, Moscardo and Gray (2016[63]) note that it is paramount that there is an alignment between the goals of the individual and the organisation, and that the organisation supports employee engagement in the coaching/mentoring programme through ensuring senior managers are committed to it and provide an appreciative environment (Baron and Morin, 2010[70]; Blackman, 2010[71]; Gray, Ekinci and Goregaokar, 2011[72]; Kim et al., 2013[61]; Kombarakaran et al., 2008[73]; Maritz, 2013[74]; McGurk, 2011[75]; Peterson,

1996[76]; Schnell, 2005[77]; Smither et al., 2003[60]); (Wasylyshyn, Gronsky and Haas, 2006[78]; Winum, 2005[79]).

As with other training practices, while mentoring and coaching are widespread, there is a limited focus on organisation out-turns from these programmes. Instead, evaluations have focused on the engagement and motivation of employees as the key metric.

Reverse mentoring help provide workers a forum for mutual learning but should go beyond just learning about technology

Reverse mentoring, is inherently related to coaching and mentoring, and is of growing in prominence. Where mentoring and coaching open up learning opportunities for junior employees, reverse mentoring revolves around the transfer of knowledge and competences from junior employees to more senior ones (Flinchbaugh, Valenzuela and Li, 2016[36]). In the United States, a range of large organisations have implemented reverse mentoring including, e.g. General Motors, Unilever, Deloitte & Touche, Procter & Gamble, and IBM (Chaudhuri and Ghosh, 2011[80]).

Various stakeholders have discussed the advantages of this practice within the context of multigenerational teams. Reverse mentoring contributes to knowledge transmission between junior and senior employees, resulting in intergenerational learning. The many examples of this practice across a wide range of enterprises shows that companies recognise the importance and effectiveness of this approach (Flinchbaugh, Valenzuela and Li, 2016[36]). The CIPD in the United Kingdom also draws attention to the inclusive nature of reverse mentoring at the workplace (CIPD, 2020[81]). According to the OECD's PIAAC data on adult skills, younger individuals score higher on average than older individuals on technological dexterity. In this context, reverse mentoring is a means for skills transfer between generations or different experiences (Flinchbaugh, Valenzuela and Li, 2016[36]). However, academics argue that the use of reverse mentoring can, and should, go beyond learning about technology; reverse mentoring can also be a means to learn about current issues related to diversity, and breakdown age-stereotypes (Chaudhuri and Ghosh, 2011[80]; Flinchbaugh, Valenzuela and Li, 2016[36]). Higher levels of understanding, and better coordination of work processes all lead to higher commitment levels amongst employees, which benefits organisations (Chaudhuri and Ghosh, 2011[80]; Harvey et al., 2009[82]).

The practicalities of the "common" mentoring and coaching approaches also apply to reverse mentoring (Chen, 2013[83]).

Simulation-based training

Although there are clear generational differences in "tech-savviness", simulation-based training, and in particular the use of virtual reality (VR) and other recently developed technologies, are not an obstacle in the learning processes of older employees. The experiential learning process behind simulation-based training makes it an appropriate training mechanism for age diverse workplaces as it is exposure, rather than age, that impacts the effectiveness of VR simulation based training (Learning Solutions, 2020[84]). This form of training can be offered at large-scale and ensure consistency of training input and practice

Because work settings are becoming increasingly complex, learning in a synthetic environment which simulates the work environment and/or work processes can be a practical training practice (Cedefop, 2009[85]). Simulation refers to "the imitation or enactment of a defined real-world process" (Robinson, Miller and Rukin, 2017[86]). An advantage of simulation-based training is that it links instruction with practice (Bell, Kanar and Kozlowski, 2008[87]). With the introduction of technology, simulation-based practices are not limit to re-enacting work situations in the real, non-virtual, world. Well-known examples of technology-based simulation training practices include flight simulations in the aviation sector and PC games. A study estimated that in the '90s, 75% of large organisations (more than 1 000 employees) in the United States used business simulations (Faria and Nulsen, 1966[88]).

The advancement of information technologies, for example, virtual reality (VR), has opened up the possibilities for simulation-based training practices, with VR based training best known in the medical sector (Robinson, Miller and Rukin, 2017[86]). However, researchers believe that training using VR simulation can help a wide variety of workers and industries. Besides enabling the acquisition of complex and technical skills, this form of training can help develop other competencies, such as attitudes (Marlow et al., 2017[89]). There are examples of VR simulation training in the arts sector, where it has been used to enhance performance (Aufegger et al., 2016[90]); and, in the mining industry, to teach workers how to function in hazardous working environments (Grabowski and Jankowski, 2015[91]). VR simulation training practices however can be very costly, thereby their use is largely limited to large employers (Marlow et al., 2017[89]).

Key features Bell, Kanar and Kozlowski (2008[87]) differentiate in simulation-based training are what makes this training practice beneficial: information richness, immersion, interactivity, and communication. Despite the benefits, there are also limitations to introduce this training practice:

- High costs: simulation-based training, and in particular technology based, is regarded as having high costs. It is also argued that it is cost-effective by reducing the incidence of costly mistakes (Ker, Hogg and Maran, 2010[92]). It is expected that the costs of technology-SBT will reduce in the future elaborate further on this
- Leveraging learning control: simulation-based training models are increasingly being delivered without the support from an instructor. This can potentially put a lot of pressure on the learner, by making the individual responsible for monitoring and evaluating their own progress.
- Solitary learning experience versus learning in a social environment: some researchers argue that the learning experience in a social context (e.g. classroom environment) is more beneficial not only through the feedback by the teacher, but also by peers. This is lost when simulation-based training is done in a solitary manner.

Training and developing groups of employees

This final cluster of practices focus on ways to bring the multigenerational workforce together within training opportunities, providing mechanisms for the transmission of knowledge and skills across generations, increasing understanding as well as skills levels.

Team-training

Teamworking has a central role in many organisations, and it is often argued that teams are more than the product of the individual members (Aragon, Jiménez and Valle, 2014[93]; Cedefop, 2009[85]). Team development encompasses team building as well as team training. Team building may initially focus on the interpersonal relationships and the social interactions of a team, whereas team training can involve the setting of goals, interpersonal relationship management, role clarification, and problem-solving as learning objectives (Shuffler, DiazGranados and Salas, 2011[94]). There is evidence that training at the team-level is more effective in terms of team performance than individually focused training (Hollenbeck, DeRue and Guzzo, 2004[95]).

The increase of teamwork within organisations means this type of training intervention is worth considering. Teamwork brings beneficial outcomes: enhanced efficiencies, quality and safety improvements, creativity, adaption (Salas et al., 2008[96]). Team-based training is particularly beneficial in high-risk working environments where tasks across the team minimise risks, e.g. health care (Gillespie, Chaboyer and Murray, 2010[97]). Team-training can target behavioural competences, such as attitudes, but also specific skills and knowledge competences and as such, the modes of delivery can vary and encompass a range of practices noted in this chapter. For example, it is also entirely possible to involve a whole team in a VR

simulation-based training (Salas et al., 2008[96]).However, more common team development practices and aims cover:

- Cross-training which is closely related to job-rotation, and involves the switches between team members in terms of work performance and tasks. This allows team members to understand each other's roles and gain an overview of the team's tasks as a whole.
- Team coordination and adaptive training focuses on the coordination strategy by targeting communication within teams.
- Guided team self-correction training aims to enhance the team's ability to diagnose team-related problems and develop team-appropriate solutions.
- Leadership training focuses on attitudes, behaviours and competences related to effectively managing a team through decision making, communication, delegation and resource coordination.

The effectiveness of team-based training has been studied in various industry settings (Arthur et al., 2003[98]; Hughes et al., 2016[99]; Salas et al., 2008[96]). A meta-analysis conducted by Delise et al. (2010[100]) found that team-training is positively associated with the improvement of specific task-oriented skills, teamworking skills, and attitudes which results in better team performance. As with each training strategy, there are factors which can benefit or limit the effectiveness of this specific training intervention. Organisations should be mindful to the content of the team-based training intervention and avoid mixed-content training interventions (Salas et al., 2008[96]). It seems that team-training works better with teams who have been working with each other previously and thus have a shared history showed better training outcomes than artificially composed teams (Salas et al., 2008[96]).

Action learning

Action learning is a training approach that originated as a development approach for managers and leaders – although its use has spread to other staff within organisations. Through processes of experiential learning, supported by reflection and action planning it aims to improve work processes within organisations (McGill and Beaty, 1992/2013[13]). It is identified as a useful training strategy for organisations experiencing significant change and reorganisation processes, as it can give a new spin to internal dynamics (Garratt, 2016[101]). It is widely used across the world and in large enterprises including the BBC (U.K.), Deutsche Bank (Germany), Nokia (Finland), US Federal Government, Johnson and Johnson (U.S.), Samsung, and Hyundai (Korea) amongst many others (Anderson and Coleman, 2014[102]; Cho and Bong, 2010[103]; Marquardt, 2011[104]; Marquardt and Yeo, 2012[105]).

The crux of action learning is learning through experience in a group setting (Anderson and Coleman, 2014[102]; Marsick and O'Neil, 1999[106]). Through feedback, constructive criticism and reflection among action learning set members, employees are enabled to reach solutions that take into account the subjective insights of peers. In turn, this leads to a higher commitment and autonomy for the employee, as they "own" the problem that they are seeking to solve. These factors are important antecedents for more engaged and motivated workers, leading to better performing employees and higher productivity (Garratt, 2016[101]; McGill and Beaty, 1992/2013[13]; Saragih, S, 2011[107]). The reflective component is a useful tool for personal development and self-identifying needs (Anderson and Coleman, 2014[102]). Beyond this, through the action learning set considering a work goal for each member, action learning leads to increased understanding of work and helps groups function effectively (Marquardt, Ng Choon Seng and Goodson, 2010[108]). These authors identify eight characteristics supported by the action learning process: (i) setting clear and meaningful goals, (ii) stating explicit group norms, (iii) focus on interpersonal and communication skills, (iv) committing to solving problems and tasks, (v) enabling trust, openness and group cohesiveness, (vi) managing conflict, (vii) shared leadership and accountability, and (viii) continuous learning and development (Marquardt, Ng Choon Seng and Goodson, 2010[108]).

There are various approaches to action learning: coached action learning, self-managed action learning, virtual action learning etc. (Anderson and Coleman, 2014[102]). This shows how action learning is a flexible training strategy that can be adapted to the particular needs of an organisation, as well as the individuals involved. In light of the multigenerational workforce, this is particularly important as it increases opportunities for skills, knowledge and experience transfer and building understanding of differing perspectives. A few studies have looked at the return of investment of action learning, estimating this to be between five and 25 times the actual cost of the training (Brenneman, Keys and Fulmer, 1998[109]; Fulmer and Vicere, 1996[110]; Raelin, 2008[111]). However, differences in costs may be due to implementation, particularly whether an external facilitator is brought on board. However, some factors influence the effectiveness and how much an organisation benefits from the action learning's implementation. It is important that, as with any training strategy, there is a supportive organisational environment, as well as setting clear objectives before the implementation (Leonard and Marquardt, 2010[112]).

Key takeaways

- In terms of maximising the benefits of a multigenerational workforce, employers need a fresh approach. All skills have a limited shelf-life if not further developed. In this context, employers need to ensure that the skills of older workers skills do not become obsolete while at the same time ensuring that the skills of younger generations of workers are continually developed.
- There are a range of practices that promote continuous development while at work, as well as maximise the benefits of a multigenerational workforce. However, they must be underpinned by a clear process for identifying and updating the profile of the skills of the workforce matched to the company's skills requirements. Approaches can include training needs analyses, mid-life career check-ups or assessments, careers conversation and personal/professional development plans.
- Job rotation and job shadowing are effective ways for organisations to build resilience through increasing knowledge and skills required across their teams.
- Mentoring and coaching approaches are amongst the most widespread tools in talent management. Both involve an intense interpersonal relationship, with personal development at the centre, and aims to transfer knowledge from a senior employee to a novice worker.
- Reverse mentoring allows for the transfer of knowledge and understanding from a career or job entrant to a more experienced worker, and is most often found between younger and older employees. Beyond the transmission of skills and knowledge, this approach can help to breakdown age-stereotypes, and to show the benefits of diverse workplaces.
- Group learning and team training have become increasingly important, particularly hazardous working environments where it is important to have good coordination and communication between team members. Training the whole team builds common understanding of work tasks and their performance.
- The effectiveness of these training interventions is evidence-based. However, in order to reap the benefits, it is paramount that implementation has clear support from management. Additionally, evaluating the outcomes of training is crucial for success.

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Notes

[1] In selecting training measures for this chapter, various factors were taken into account. These were i) applicability of training measures across a wide range of sectors and occupations; ii) from widely known measures to more specific/'niche' ones; iii) variety in methods iv) variety in type of skills targeted; v) appropriateness for early career versus mid/late-career workers and vi) evidence of effectiveness.

[2] There are two key forms: In job-to-job (J2J) rotation, individuals are rotated between different jobs in the same organisation, to perform activities with distinct natures. In project-to-project (P2P) rotation, individuals are moved between projects of similar nature (e.g. two software development projects), often keeping the same technical role (Azizi, Zolfaghari and Liang, 2010[37]).

[3] Casad also draws a distinction between cross-functional and inter-functional job rotation. The first entails rotation between different departments with different tasks, the latter refers to job rotation within the same department but with a different primary duty.

Promoting an Age-Inclusive Workforce

LIVING, LEARNING AND EARNING LONGER

All OECD economies are undergoing rapid population ageing, leading to more age diversity in workplaces than ever before as people are not only living longer but working longer. Greater diversity of experience, generations and skills gives employers an important opportunity to harness the talent that different age groups bring to the workplace and improve productivity and profitability. What can employers do to maximise the benefits of a multigenerational workforce? This report presents a business case for embracing greater age diversity at the workplace and debunks several myths about generational differences in work performance, attitudes and motivations towards work. It points to key employer policies and offers practical examples in three key areas to support and promote an age-inclusive workforce. This includes designing and putting in place all-age and life-stage policies covering the full span of workers careers through best practice in recruitment, retention and retirement, as well as the promotion of life-long learning and good health at work.

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