



Supporting longer working lives:  
Multistage approaches for decent and productive work

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## Executive Summary

This background paper discusses the potential impact of ageing societies on the labour markets in G20 countries. It provides an overview of key questions raised in the context of a longer working life and policy options which can support a multistage life approach. It begins with a review of the evidence about longer working lives and changing working patterns as well as and how societies, labour markets and institutions react and support these shifts. The paper then turns to policy principles and options for a multistage life approach, focusing on examples from G20 countries.

### The impact of an ageing workforce

In all parts of the world, the work force has been ageing over the past decades and is projected to do so in the following decades. In the majority of countries, labour force participation rates over the work-life cycle form a reverse u-shape with low participation rates for the younger population and the older population and high rates for the prime age population (25-54 years). While the gender gap increased for the age group 25-44, it narrowed slightly for all other groups. The major employment challenges of these trends are to create sufficient decent work opportunities for all new labour market entrants while at the same time ensuring decent working conditions for older workers.

### Changing patterns of work-life

The fact that people live and stay healthier for longer will most likely lead to new patterns of how they spend their time throughout the life-cycle. The prospect of a longer working life could lead people to decide to have breaks during their working life, for example when their children are young, family members need care or when they want to invest in non-tangible assets such as skills development, personal development, or building of relationships. The speed of change in the world of work caused by technological progress might make it even a necessity for people to up-skill or re-skill outside of their work, which could require them to take a break. All these interruptions of the traditionally more “linear” work life are linked to uncertainties that existed far less in the classical three-stage life model, which meant for the majority of people moving from education to work and then to retirement. As a consequence, targeted policies are required to support people in navigating the transitions.

### A universal entitlement to lifelong learning

Education and training systems of the future need to be more flexible and better able to prepare individuals to learn continuously over their life-time. An explicit commitment is required from all stakeholders to work towards **a universal entitlement to lifelong learning** that enables people to acquire skills and to continuously reskill and upskill. Governments, workers and employers have – in conjunction with educational institutions – a joint responsibility in building an effective and appropriately financed **lifelong learning systems**.

### Strengthen social protection and income security

Targeted policies to strengthen social protection and income security are needed to help people navigate the various life and work transitions they will undergo. These policies need to ensure that

these transitions do not put the well-being and development of people at risk. Social protection systems, including floors, need to be strengthened in order to close existing coverage gaps and to ensure **universal social protection from birth to old age**.

### **Equal opportunities for women and men**

Women and men need to have equal opportunities in choosing their transition paths. This can be achieved through **a transformative agenda for gender equality** which combines employment policies and social protection policies. Such policies include, for instance, the promotion of sharing care and domestic responsibilities between women and men by establishing and expanding leave benefits which encourage both parents to share care responsibilities equally.

### **Policies to support new working patterns**

Other policies can complement skills and social protection policies. These include financial incentives to hire and retain certain workers, adapting public employment services to multi-stage working lives, rectifying perceptions regarding older people, and fostering entrepreneurship for older people and transitional entrepreneurship.

## I. Introduction

Greater longevity is one of the biggest achievements of development throughout the world. A child born today in a European country has a 50 per cent chance to become 100 years old; in all countries life expectancy is increasing 2 years per decade (Gratton and Scott, 2016 and 2017).

Where the new normal involves living until 100, life planning will need to change dramatically. Challenges for individuals, and societies as a whole need to be tackled to ensure that older people can live the life they want.

Working longer may be a natural response to a longer life and to the ongoing sustainability of social security systems. However, this should be a *choice* that people make to engage in decent and productive work. “Healthy and active ageing”, “active participation for a lifetime”, “lifelong active societies”, “multistage work lives” are all concepts discussed in this context.

Making this a reality requires that individuals, policies, institutions and systems adapt to changing life work life patterns. We are witnessing a shift from the traditional “three stage model” -- education, work and retirement -- that still characterizes most G20 countries to a “multistage working life model” -- more frequent career transitions in a lifetime, moving in and out of the labour force, lifelong learning/retraining, and two-earner households.

In a rapidly changing world of work, the transitions that result from a multistage working life will increase the risk of uncertainty and insecurity. Investments are needed in lifelong learning, decent work and adequate social protection, not only to mitigate these risks but also to allow all those who work to realize their capabilities. Responsibilities for these investments need to be shared between all partners in a society. The ILO’s Global Commission on the Future of Work Report “Working for a Brighter Future” provides a list of relevant recommendations concerning how to create “lifelong active societies” and how to “support people through future of work transitions”.

The G20 developed Principles on Silver Economy and Active Ageing in 2015 under the Turkish presidency. Several additional policy and guidance frameworks developed on active ageing and longer work lives have been developed, including the Madrid International Plan of Action on Ageing<sup>1</sup>, the 2013 resolution and conclusions of the ILO’s tripartite discussion at the International Labour Conference (ILC) on employment and social protection in the new demographic context<sup>2</sup>, and the

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<sup>1</sup> In April 2002, government representatives from across the globe met in Madrid, Spain, for the Second World Assembly on Ageing. They adopted a global Plan of Action “to respond to the opportunities and challenges of population ageing in the twenty-first century and to promote the development of a society for all ages”. The plan, commonly known as MIPAA, is a comprehensive list of commitments for United Nations Member States, and focuses on three priority directions: older persons and development; advancing health and well-being into old age; and ensuring enabling and supportive environments.

<sup>2</sup> Resolution concerning employment and social protection in the new demographic context [https://www.ilo.org/wcmsp5/groups/public/---ed\\_norm/---relconf/documents/meetingdocument/wcms\\_223784.pdf](https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---relconf/documents/meetingdocument/wcms_223784.pdf)

WHO Active Ageing Policy Framework<sup>3</sup>. While focusing on older people, the principles involved remain highly relevant to the multistage life approach.

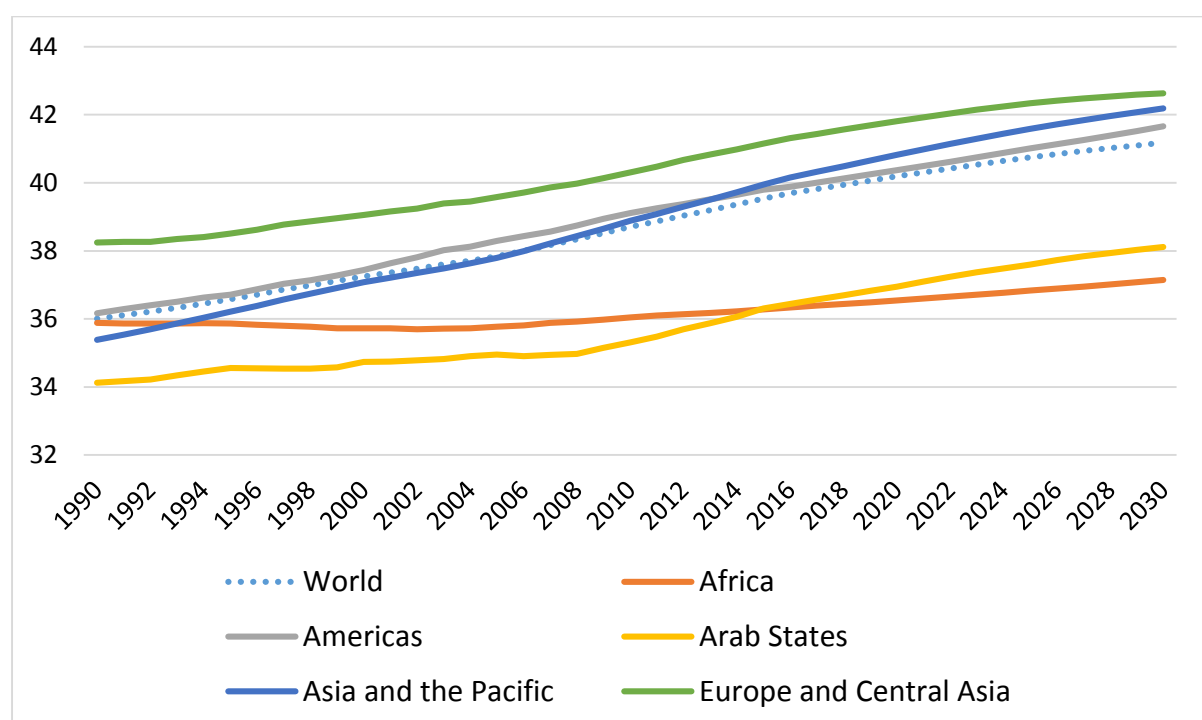
This paper provides an overview of key questions raised in the context of a longer working life and policy options which can support a multistage life approach. It begins with a review of the evidence about longer working lives and change working patterns as well as and how societies, labour markets and institutions react and support these shifts. The paper then turns to policy implications and options for a multistage life approach, focusing on examples from G20 countries.

## II. Changing patterns of work-life

### The workforce is getting older

The average age of people in the labour force has been increasing rapidly and this trend is expected to continue. The increase is expected to be steeper in Asia and the Pacific, where the average age of the workforce is expected to climb from 40.3 to 42.3 in the years to 2030, as well as in Europe and Central Asia, where it should reach 42.6, up from 41.4 in 2017 (ILO, 2018a). Europe and Central Asia has the oldest workforce, but even in the very youthful regions such as Africa and the Arab States the workforce will get older (see Figure 1).

**Figure 1: Average age of the labour force, 1990-2030 (projections for 2018 and beyond)**



Source: ILOSTAT, ILO Labour Force Estimates and Projections

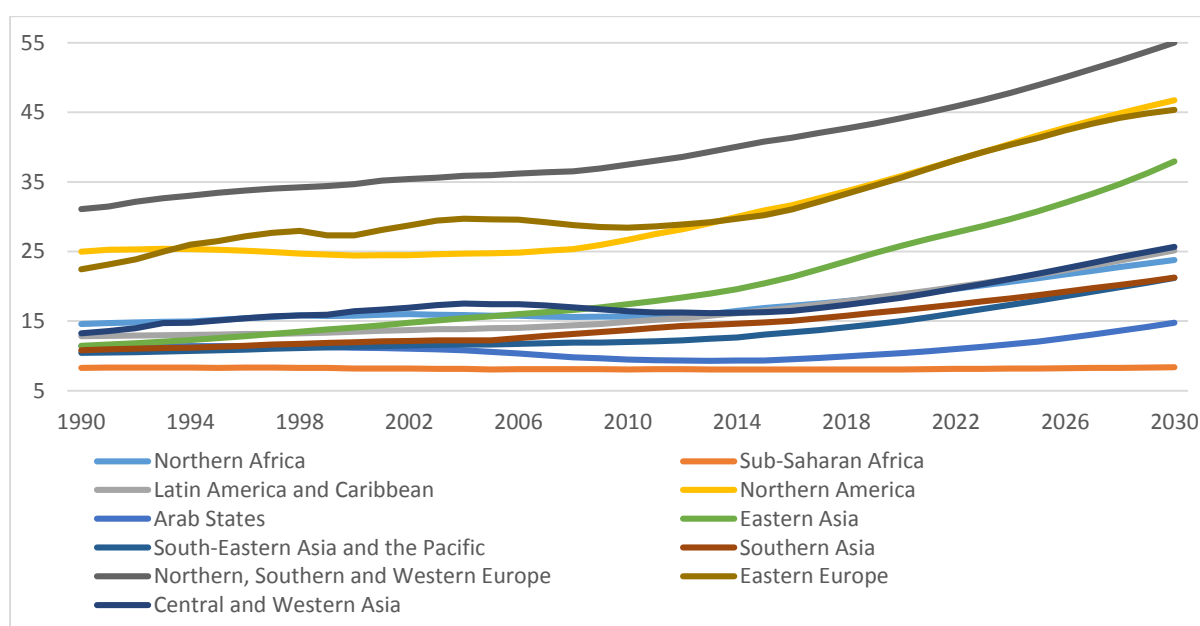
<sup>3</sup> WHO (2002)

[https://apps.who.int/iris/bitstream/handle/10665/67215/WHO\\_NMH\\_NPH\\_02.8.pdf;jsessionid=235AFA0ED3E4A5FF8BACA86EECC75559?sequence=1](https://apps.who.int/iris/bitstream/handle/10665/67215/WHO_NMH_NPH_02.8.pdf;jsessionid=235AFA0ED3E4A5FF8BACA86EECC75559?sequence=1)

### Impact on economic dependency ratios

The old-age economic dependency ratio<sup>4</sup> – the ratio between the elderly population (aged 65+) and people in the labour force – is increasing in many parts of the world (Figure 2). This impending challenge is particularly significant for the regions of Europe, Northern America and Eastern Asia. For instance, in Northern, Southern and Western Europe, for 100 persons in the labour force, there will be 55 persons aged 65 and over by 2030, up from 42 persons in 1990. The issue of high old-age economic dependency ratios arises not only in high-income regions, but also in key emerging economies, such as China and the Russian Federation, where the labour force is expected to decrease substantially while the elderly population is expected to increase rapidly. Nevertheless, some regions, such as Africa and Southern Asia, still have very large young populations entering the labour force. Their major challenge in the medium term will lie in creating enough decent work opportunities for the large number of new entrants into the labour force while preparing for the impending ageing of the population (ILO, 2018a).

**Figure 2: Old-age economic dependency ratios 1990-2030 (percentage)**



Source: ILOSTAT, ILO Labour Force Estimates and Projections

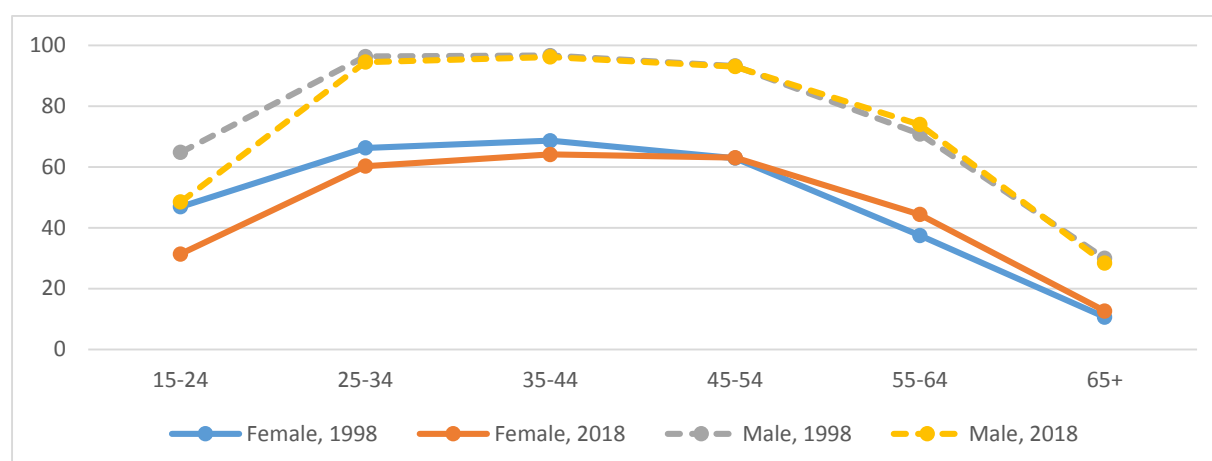
### The impact on labour force participation rates for people aged 65+

In the majority of countries, participation rates over the work-life cycle form a reverse u-shape with low participation rates for the younger population and the older population and high rates for the prime age population (25-54 years); (see Figure 3 below and Table 1 in the annex for G20 countries).

<sup>4</sup> There are different ways to calculate dependency ratios. While some researchers and institutions take the ratio of the population 65+ and compare it to the working age population (15-64), the ILO has been advocating to rather compare it to the labour force at working age.



**Figure 3: Labour force participation rates (per cent) by sex, 1998 and 2018, G20 averages**

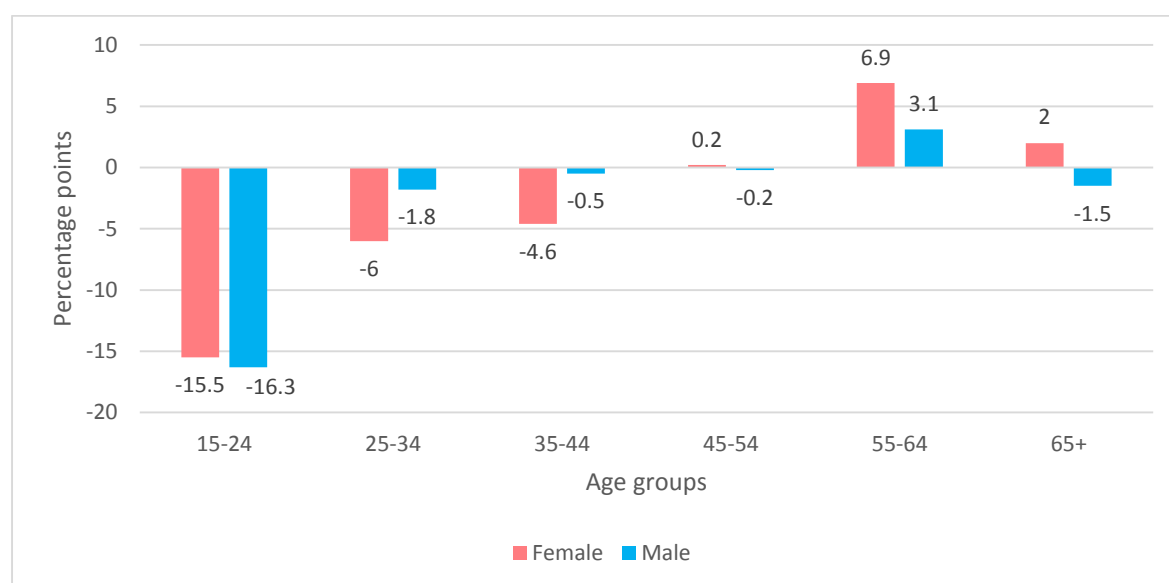


Source: ILOSTAT, ILO Labour Force Estimates and Projections

Table 2 in the annex shows the change in labour force participation rates (percentage points) in G20 countries between 1998 and 2018. No clear pattern emerges regarding the changes for different age groups. Across G20 countries, old-age labour force participation rates for those 65+ increased considerably in Australia, Canada and the US for both men and women, while in the UK rates increased mainly for men. In all other countries, changes in labour force participation of 65+ were not that large, and in some cases even negative. It is interesting to see that such a reduction in labour force participation rates is mainly observable for men, for example in Brazil, China, India, Japan, Mexico, the Russian Federation, Saudi Arabia and South Africa. Only in Turkey did the rates decrease considerably for men and women. The uneven patterns across age groups show that shortages of labour as a result of ageing patterns in societies are not necessarily filled by old age workers, but can be filled through higher participation of other age cohorts.

For the G20 as a whole, changes in labour force participation rates were considerably strong for young people aged 15-24 (see Figure 4). This is mainly the result of young people staying longer in education. For older people (55-64) an increase is observable for women and men, but for the latter it is relatively small. So far changes for the age cohort 65+ were also relatively small. It is remarkable that for the age groups 25-34 and 35-44 the gender gap increased as the decrease in rates was higher for women than for men. For all other age groups the gender gap slightly narrowed.

**Figure 4: Change in labour force participation rates by sex and age groups, 1998 and 2018, G20 averages**



Source: Authors' calculations based on ILOSTAT Labour Force Estimates and Projections

### Young and older workers: “crowding out” or “crowding in”?

The “lump of labour” fallacy has been deployed many times in discussions of the effects of population change on employment: fears that women entering the workforce would displace men, immigrants would displace national workers or older workers would crowd out younger workers. However, this perception is based on an incorrect assumption that the size of the workforce as well as the demand for goods and services is fixed.

Tables 1 and 2 in the annex provide important insights into this debate. As the decrease in labour force participation rates for people aged 15-24 is mainly the result of younger people staying longer in education, the argument of a crowding out of young people as a result of higher labour force participation rates for older people does not hold true. Looking at the next age cohort (25-34) and comparing its change in participation rates with those of older people is a better reference: in the majority of cases, an increase in older workers’ participation (55 and above) does not imply a decrease in the participation rate of the 25-34 cohort. Instead, labour force participation rates move in the same direction for these age groups.

This becomes even more obvious when looking at employment rates and total employment numbers. Numerous studies (including cross-national comparisons) have demonstrated that higher rates of employment among older adults positively correlate with higher employment for younger workers (Anzilotti, 2017; Berkman, Börsch-Supan and Avendano, 2015; Börsch-Supan, 2014). Strikingly, countries with high rates of early retirement have higher unemployment rates and lower employment of the young (Börsch-Supan, 2014).

### Further indications for changing patterns of work-life

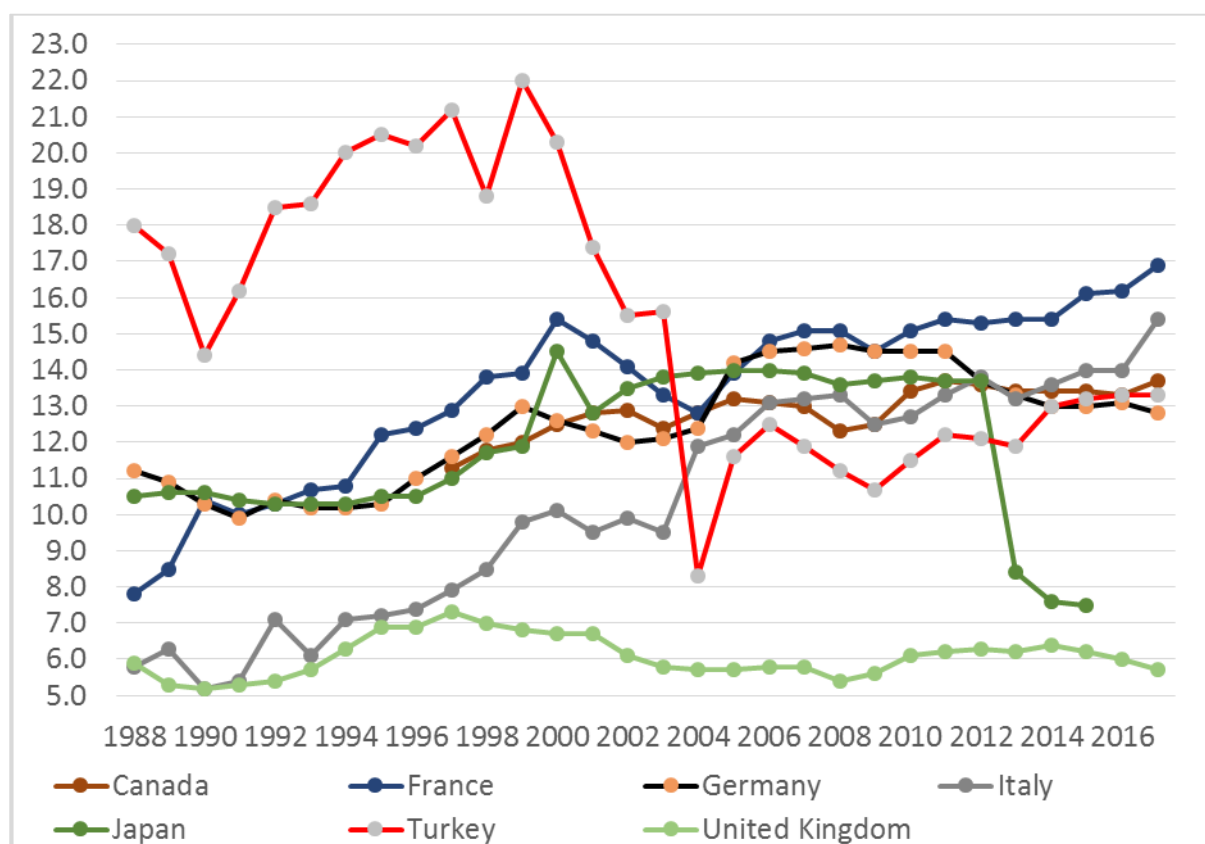
The fact that people live and stay healthier for longer will most likely lead to new patterns of how they spend their time throughout the life-cycle. There is indication that people want to work longer than is currently the case because work not only ensures economic independence and security but also gives meaning to people's lives, integrates them better into societies and helps them to stay active. On the other hand, the prospect of a longer working life could lead people to decide to have breaks during their working life, for example when their children are young, family members need care or when they want to invest in non-tangible assets such as skills development, personal development, or building of relationships. Also, the speed of change in the world of work caused by technological progress might make it necessary for people to up-skill or re-skill outside of their work, which could require them to take a break. Changes in the world of work could also lead to forced phases of economic inactivity. All these interruptions of the traditionally more "linear" work life are linked to uncertainties that existed far less in the classical three-stage life model, which meant for the majority of people moving from education to work and then to retirement.

The analysis of labour force participation rates give some indications that work-life patterns are changing: Young people stay longer in education before they move into work, older people work longer; and for other age cohorts in many countries labour force participation differs from the past.

There are many studies indicating that work-life patterns are changing (see for example Fagnani, 2011; Long, 2016). Also, the analysis of some labour market indicators such as changes in part-time work and temporary work hint at changing work-life patterns. Unfortunately, these indicators usually do not exist for different age groups and can therefore only be analysed at the aggregate level.

Country level studies indicate that temporary work is often the only solution people have during transition periods, so an increase could indicate an increase in transition periods. There is no clear pattern observable across G20 countries. As shown in Figure 5 for selected G20 countries, temporary work is increasing in some countries such as France, Italy and Turkey (for the latter at least in recent years) and decreasing in others such as Japan and Germany in recent years. Canada and the UK have not seen any major changes. There is however a clear upward trend in temporary employment among young people in the EU. In 1995, one third (32.3 per cent) of young people were on temporary contracts – by 2017, this share had increased to 45.0 per cent (Eurofound, 2013).

**Figure 5: Share of temporary employees (per cent), selected G20 countries**

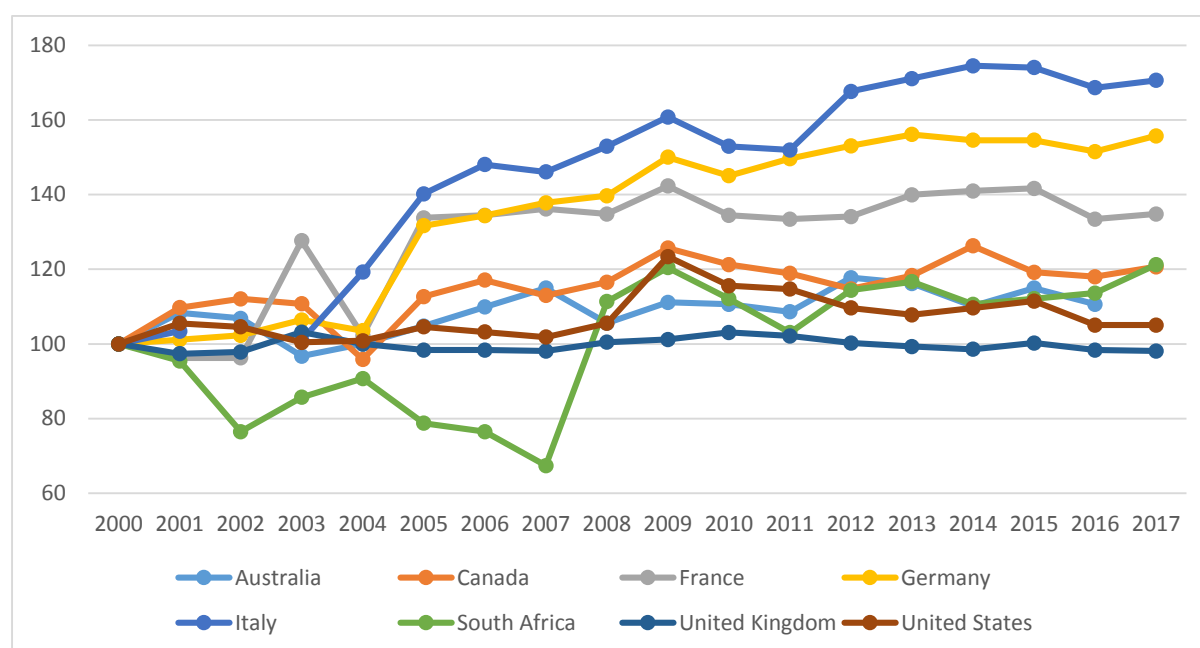


Notes: This indicator represents temporary employment as a percentage of employees. Temporary employment, whereby workers are engaged only for a specific period of time, includes fixed-term, project- or task-based contracts, as well as seasonal or casual work, including day labour. There are wide differences in definitions used across countries, which should be kept in mind when making cross-country comparisons.

Source: ILOSTAT

People often engage in part-time work during periods when they need additional time for care work at home or during up-skilling or re-skilling periods. Part-time work shows a general upward trend for most countries where data is available, even though in some countries the increase is quite modest (Figure 6).

**Figure 6: Incidence of part-time employment (selected G20 countries), Index, 2000=100**



Note: The incidence of part-time employment, also known as the part-time employment rate, represents the percentage of employment that is part time. Part-time employment is based on a common definition of less than 35 actual weekly hours worked. It is derived from the indicator on employment by sex and actual weekly hours worked.

Source: ILOSTAT

While there is clear evidence that young people change their jobs more frequently than older people (ILO, 2017b), there is also some evidence that young people change their jobs more often than in the past (see for example Backman, 2018 or Pagliara, 2018). Although these changes might not all be voluntary, they would prepare young people better for a future work life with multiple stages. For prime age workers and older workers some evidence shows the same trend (for the US, see for example Johnson et al., 2009), but systematic studies across countries have not yet been conducted.

One interesting trend linked to changing work-life patterns is the increased length of maternity leave (paid and unpaid) and of men taking paternity leave in those countries where this is legally possible (see ILO, 2014). Although the latter trend is still very small, this is a remarkable change in male work-life patterns. Also, many double-income families make the decision to live for a while with only one income when children are born or are still young, despite the fact that, in addition to reduced family income, in many cases this also reduces future pensions.

### Increasing recognition of importance of re-skilling and up-skilling, but slow growth in uptake of learning opportunities and low funding

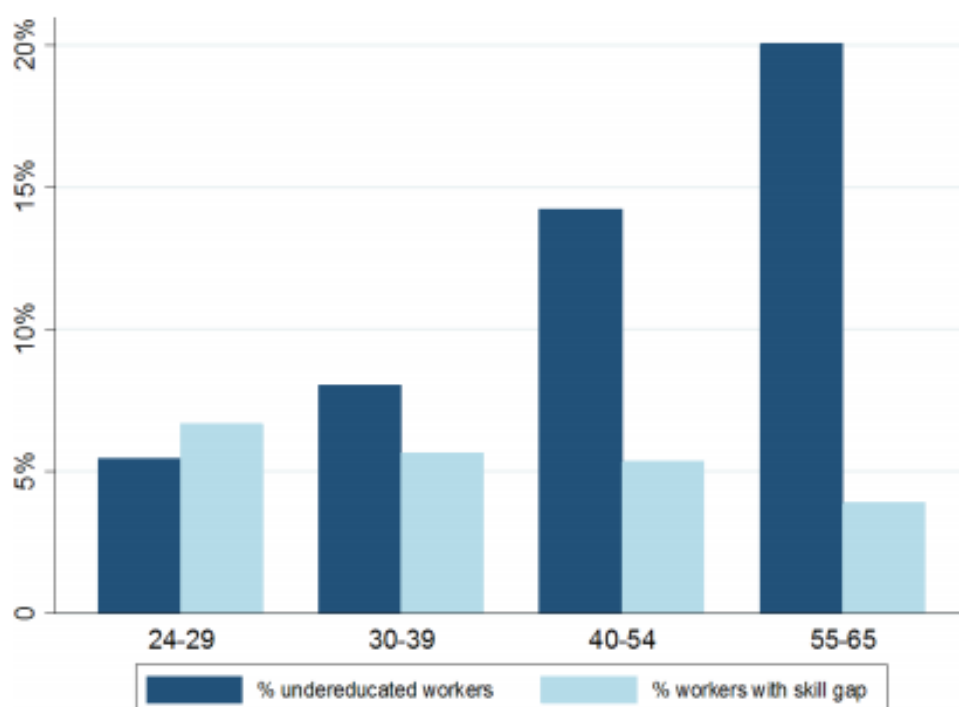
Given the demographic ageing trends discussed above, in addition to the speed of technological progress that requires new skills in very short periods of time, many G20 countries are expected to

experience severe labour shortages. Without a major development of skills supply the capability of economies to sustain employment in some sectors or enter emerging sectors could be undermined.

However, the solution is not simply undertaking large-scale up-skilling and reskilling programs. Workers in the future will increasingly throughout their careers need to cope with advances in technology, carry out new tasks, and adjust to changes in work organisation and to a more unstable life in general. Having the right skills development ecosystem in place that supports lifelong learning is critical.

Levels of educational attainment have been steadily increasing globally. Young workers are better educated as they enter the labour market, as is shown in Figure 7. The percentage of undereducated workers in the younger age group is only slightly over 5 per cent, while it is 20 per cent for workers above 55 who did not benefit from such long years of education when they were children and youth. At the same time, adult and older workers have a comparative advantage in the skills they acquire through their work experience. These acquired skills lead to smaller skills gaps among older workers than among prime-age and younger workers, as also shown in Figure 7. Older workers provide therefore a valuable contribution to intergenerational learning.

**Figure 7: Undereducation and skill gaps in the EU by age category**

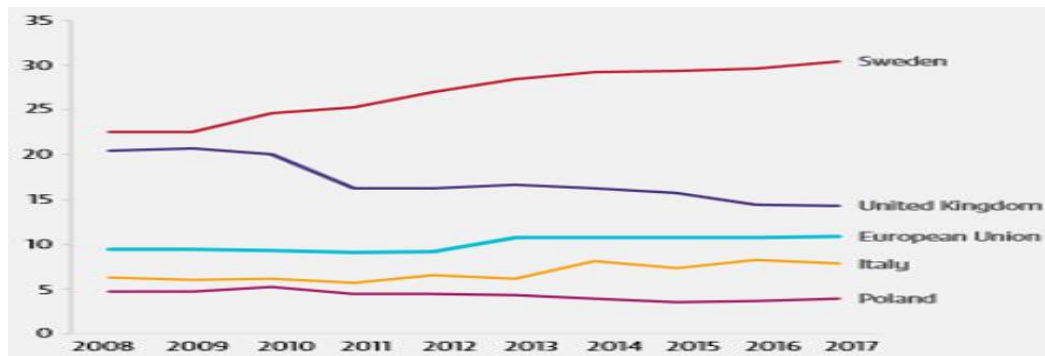


Source: Cedefop, EU-OSHA, Eurofound, EIGE (2017)

Participation in adult training is necessary to constantly update skills in line with changing demand by enterprises. Participation in adult learning, however, remains too low (UNESCO-UIL, 2016). The European Union Adult Education Survey, a comprehensive instrument which covers courses, workshops and seminars, guided on-the-job training, and private lessons, reports an average 12 per

cent participation rate in adult learning in the EU, with a range between 4 per cent in Poland and 31 per cent in Sweden (EUROSTAT, 2018; see also Figure 8).

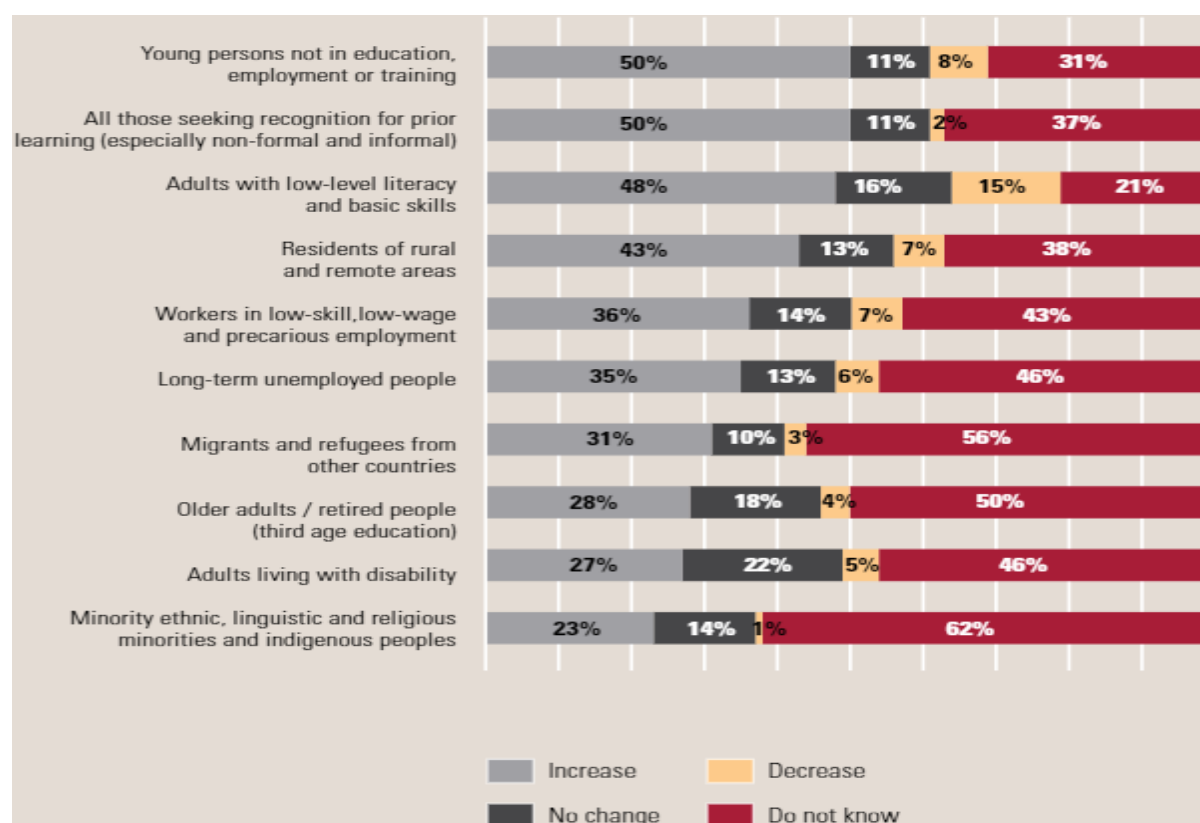
**Figure 8: Participation in adult learning in the EU, 2008-2017 (as share of total number of adults (25+))**



Source: EUROSTAT, 2018

In addition, there is evidence that people living in poverty, workers in the informal economy, people living in remote rural areas, members of ethnic minorities, refugees and migrants have poor access to training. As shown in figure 9, one positive development is the increasing participation of adults with low level literacy, residents of rural and remote areas and young people not in education, employment or training (NEET) in adult learning programmes. Progress in engaging older workers in training is however limited.

**Figure 9. Changes in participation rates of different groups in adult learning globally (percentage)**



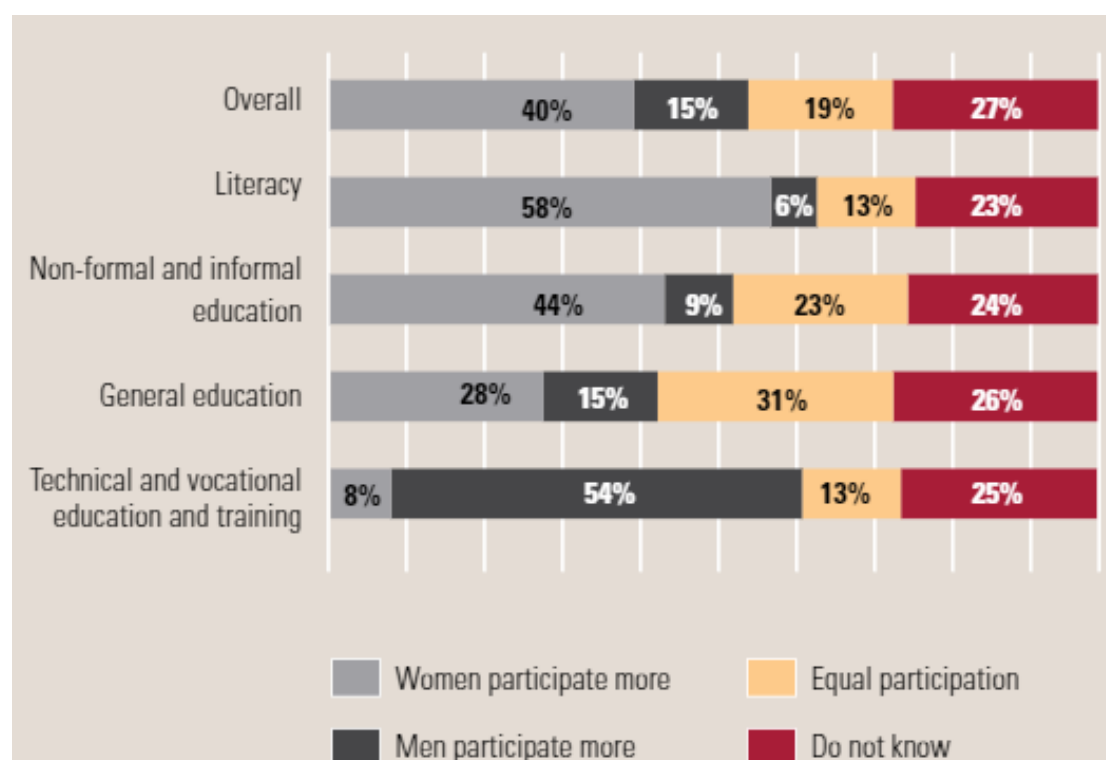
Source: UNESCO-UIL, 2016.

Note: Progress reported by 139 countries globally since 2009.

Although women participate on average more often than men in adult learning (Figure 10), they engage in considerably different types of learning than men: women participate more in non-formal and informal education. This highlights the importance of recognising this type of training. Also, women mainly benefit from literacy training and comparably little from technical and vocational education and training.



**Figure 10. Participation in adult learning by sex and type of programme**



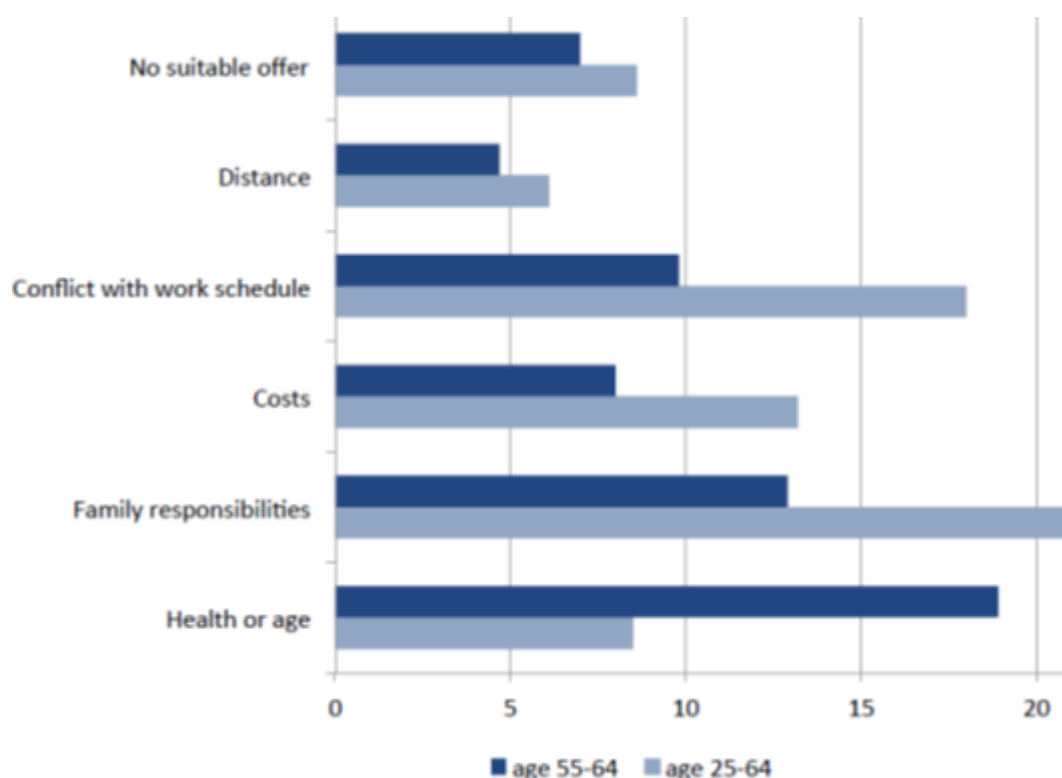
Source: UNESCO-UIL, 2016.

Note: Progress reported by 139 countries globally since 2009.

Participation in learning not only is relatively low, but also declines with age and is lower among the unemployed than employed (Picchio 2015; Cedefop, EU-OSHA, Eurofound, EIGE, 2017). Higher participation in training among those in employment is partially due to the important role of workplace training, usually provided by employers. On average, 37 per cent of industry firms offer formal training, from a sample of 150 countries, with participation ranging from 2 to 79 per cent (World Bank, 2017). However, the increasing share of new forms of employment, including the platform economy, gig economy and zero-hour contracts, is challenging traditional access to workplace training.

Many factors influence the participation of workers in adult learning. Such factors include a lack of literacy and numeracy skills as well as low levels of educational attainment, health, age and work-life balance, cost of training (Figure 11). Since 2009, the increase of those seeking recognition for prior learning (RPL), especially for non-formal and informal prior learning achievements, has become one of the factors in determining participation, as reported by half of monitored countries (UNESCO-UIL, 2016). These factors suggest that there is ample space for public policies to adjust the training offer and its format to adults.

**Figure 11: Reasons for non-participation in training by age groups in the EU-28 (per cent)**



Source: Cedefop, EU-OSHA, Eurofound, EIGE, 2017.

Finding financing solutions to provide training for workers remains the primary challenge. Public expenditure on education was approximately 14 per cent of total public expenditure globally in 2014 (International Commission on Financing Global Education, 2016). However, funding levels for adult learning and education are low. Forty-two per cent of countries spend less than 1 per cent of their public education budget on adult training, and there is evidence of decreasing levels of formal adult training offered by enterprises (UNESCO-UIL, 2016; World Bank, 2017).

### III. Possible policy principles and options and recent policy responses in G20 countries

#### III.1 Policies on skills and training: towards lifelong learning

The traditional path of skills acquisition in one's youth is no longer sufficient, nor is it effective in the context of rapidly changing skill requirements. As detailed in the above analysis, skills systems, as well as enterprises and individuals have not yet fully adjusted to these new needs. Education and training systems of the future need to be more flexible and better able to prepare individuals to learn continuously over their life-time.

### Skills ecosystems with multi-stakeholder funding and governance of Lifelong Learning (LLL)

Operationalizing the concept of LLL requires governance and financing models to be revised in accordance with the increasingly integrated and complex skills systems that will be required. Establishing LLL systems also demands more flexible education and labour arrangements, in order to facilitate and increase individuals' current access and engagement with learning opportunities. Such arrangements include modularised courses and flexible delivery methodologies, including blended learning.

In response to the demand for higher level skills, there has been a diversification of post-compulsory education and training providers. A wider range of public and private education and training providers now offer more diverse and flexible courses, which cater to a more diverse population of learners. This has created more diverse pathways to and from tertiary education and training. It is expected that this trend will continue and intensify in the future (UNESCO, 2015).

In this context, investment in skills development should be encouraged through innovative public-private partnerships between schools, universities and private training providers (EC, 2016). However, in increasingly fragmented labour markets, where individuals are likely to need training at an increasingly rapid rate, it is important to shift the emphasis from funding of institutions to funding of individuals, including arrangements where an entitlement to learning forms part of the overall social security system.

Given the multiple stakeholders involved in LLL, one of the main challenges of public policy is to foster institutional arrangements through which government departments, employers, workers, and education and training institutions can respond effectively to changing skills needs and play a strategic and forward-looking role in coordinating the education and training system. This is a key message in both the G20 Training Strategy and the G20 Skills Strategy (ILO, 2011; OECD, 2015) and covers social partner involvement in policy, strategy, programming and financial decisions.

ILO and OECD research on skills utilisation has found that integrated approaches which consider training, employment and economic development priorities in an integrated fashion can help improve the business case for investing in workers' skills potential. This requires a move away from policy silos at the local level in an effort to bring together employment services, training policies, economic development organisations as well as innovation programmes. Coordinated efforts between these parties would encourage participation in learning and ensure that individuals and employers are able to access relevant and high-quality education and training services (OECD and ILO, 2017). Such changes are also reflected in the growing interest within UNESCO on 'learning cities' which shifts the focus of LLL from national policy systems to more practical local solutions where LLL can be better operationalized (UNESCO 2015a).

## Financial incentives and other motivational mechanisms to encourage learning and enhance employability through LLL

In light of the need to increase the participation of certain groups in education and training (including adults, the self-employed, women and youth), financing mechanisms are an increasingly important policy tool to stimulate participation as well as to improve the alignment between skills demand and supply. Many G20 governments have been using financial incentives (such as subsidies, tax incentives and subsidised loans) to encourage greater investment in and uptake of education and training. Financial incentives can also be used to steer the provision and acquisition of education and training towards areas of skills shortage.

A recent study by OECD (OECD, 2017) observed that financial incentives are already used to a greater extent in non-EU countries (e.g. Australia, Canada and the United States), where governments are more reliant on the market to deliver education and training outcomes. If more countries follow suit and rely increasingly on market mechanisms to allocate resources, financial incentives will in turn become more widespread. Financial incentives for steering education and training decisions can be targeted at institutions, individuals or employers. However, the choice of which group to focus on requires a careful diagnosis of the problem.

Financial incentives to steer individuals to acquire certain types of skills include scholarships, grants, bursaries, allowances, vouchers, training cheques and credits. These are the most direct and flexible financial incentives for steering education and training decisions and can be targeted at various groups:

- Students participating in initial education: many countries have scholarship programmes that provide incentives for students to take up certain courses. A large number of these programmes also focus on STEM courses but also target subjects for which there is unmet labour market demand.
- The employed: subsidies for training existing employees are most often paid directly to employers since they are best placed to understand their skills needs. However, certain “retention and advancement” programmes target low-skilled workers who are less likely to benefit from employer-sponsored training, and aim to increase their chances of retaining their existing job and/or moving to a higher quality one. In Germany, for example, workers without qualifications and workers who have spent at least four years in a job unrelated to their initial training may receive funds from the government to retrain in an area with good labour market prospects.
- The unemployed/inactive: labour market training plays a critical role in matching labour demand and supply by ensuring that the unemployed/inactive are given the skills that are needed by employers.

Individual time/savings/learning accounts are another instrument for governments to encourage training participation. These allow individuals to save up time or money which they can subsequently use for training purposes. In some cases, countries have built in mechanisms to steer training choices towards skills in high demand (OECD, 2017). In France, time saved through the Compte Personnel de

Formation (Individual Training Account) can be used to take up a list of training courses selected by the Regional Councils, the social partners and the professional associations, which often reflect foreseeable economic needs. The successful Scottish individual learning account ILA 200 scheme is directed towards low income individuals and provides up to £200 annually towards tuition fees for a wide range of courses that need not lead to a formal qualification (Ziderman, 2016).

While employer participation in training is affected by various factors including firm size, information asymmetries, liquidity constraints and the risk of poaching, one of the major reasons governments intervene in conventional training markets is to encourage formal sector enterprises to provide more and better training. The vast majority of incentives for steering the training decisions of employers come in the form of direct subsidies. While many of these support apprenticeships as an important element of initial education and training, many remain general and do not target specific skills, instead allowing for flexibility in the identification of training needs, both on the part of employers and on the part of government.

Governments may subsidise enterprise training directly from central government budget appropriations. At the same time, they often rely on specially designated training funds linked to enterprise levy-grant schemes to fund will initial and continuing vocational education and training. While many variants are found in terms of actual practice, a common feature of levy-grant schemes is the use of payroll or other levies to accumulate funds that are then used to fund training or to incentivise firms to invest in more and better training of workers (ILO 2017).

Training levies can also be sector-specific and may be based as appropriate on the value of turnover, output, value of contracts or employment rather than only company payrolls. National levy grant schemes are in place worldwide and can be found in a range of G20 countries, including Argentina, Australia, Brazil, France, South Africa and the UK (Ziderman, 2016). In South Africa, a common 1 percent payroll levy is in place but allocation and management of levy proceeds is controlled by tripartite Sector Education and Training Authorities (SETAs). In Brazil, the system puts the private sector in the driver's seat when it comes to decision making regarding the fund allocations, and this feature makes the system more responsive to labour market needs as compared to other levy-grant systems in Latin American countries.

### III.2 Policies to strengthen social protection and income security

The G20 has committed to “actively promote access to adequate social protection for workers in all forms of employment and work arrangements, and to foster non-discrimination and fair treatment regardless of the individual employment status” (G20, 2018). Fostering a multistage work life requires concrete action to ensure adequate social protection for workers in all forms of employment and work arrangements (Global Commission for the Future of Work, 2019; ILO, 2018b).<sup>5</sup>

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<sup>5</sup> Currently however, only 29 per cent of the global population is covered by comprehensive social protection systems, while more than half of the global population (55 per cent) are not protected at all (ILO, 2017a).

All aspects of social protection contribute to a multistage work life. Investments in social protection for children are critical to providing a good start in life (ILO, 2017c; ILO and UNICEF, 2019). This includes not only child and family benefits, but also benefits in kind, as well as accessible quality childcare services, in addition to access to quality education and health care. Social protection also contributes to facilitating school-to-work transitions and access to vocational training for youth.

Social protection is essential for facilitating and supporting engagement in the labour force for people of working age, as well as for protecting and enhancing human capabilities (ILO, 2017c). In this respect, unemployment protection, maternity protection, employment injury protection and disability benefits<sup>6</sup> have a major role to play to support people in navigating the various transitions in and out of employment, between different occupations and sectors of the economy, between dependent employment and self-employment, as well as to support both professional and geographic mobility.

During old age, pensions, as well as continued access to health care and long-term care are critical to support an ageing society. While significant progress has been made in extending pension coverage and improving benefits in many countries, there are still remaining coverage and adequacy gaps. Many countries face challenges in maintaining a balance between fiscal sustainability and pension adequacy in the light of ageing populations, and recent austerity or fiscal consolidation trends have affected the adequacy of pension systems and general conditions of retirement. Policy reforms should therefore ensure that pension systems fulfil their mission of providing economic security to older persons; they must also ensure sustainable and equitable financing through a combination of taxes and social security contributions that do not transfer undue financial risks to individuals. Public schemes, based on solidarity and collective financing, are by far the most widespread form of old-age protection globally; they have seen a recent renaissance, as several countries have reversed earlier pension privatization policies which did not deliver the expected results, as coverage and benefits did not increase, administrative costs soared, and financial and fiscal positions worsened.

Recent and ongoing policy reforms in G20 and other countries can provide important lessons learned on how social protections systems can support multistage life approaches. For example, many European countries are seeking to close protection gaps, in particular by addressing currently uncovered (or inadequately covered) workers, which constitutes one of the pillars under the European Social Pillar adopted in 2017. Many countries, such as China, France, Germany, Indonesia and Uruguay, are exploring ways of extending social protection coverage to workers in new forms of employment, including platform-based work, through adapted mechanisms (see e.g. Behrendt and Nguyen, 2018), and enhancing the portability of social protection rights and entitlements throughout the working life. In doing so, many countries combine enhanced social insurance mechanisms with stronger tax-financed provisions as to ensure universal coverage throughout the life course and adequate benefit

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Coverage and adequacy gaps are most pronounced for workers in the informal economy and rural areas, and for the self-employed.

<sup>6</sup> The role of social protection in supporting the full and effective participation of persons with disabilities has been elaborated in a Joint Statement endorsed by multiple partners, including from G20 countries (see ILO, IDA and others, 2019)

levels. Many countries are also harnessing digital technology to simplify administrative requirements and facilitating access to benefits and services.

Social protection systems need to adapt in response to higher professional and geographic mobility. This can be achieved through better coordination of different schemes, reducing fragmentation, adapting eligibility conditions to take into account more fluid employment histories and engagement in unpaid care work, simplification of administrative requirements and contribution collection, and harnessing digital innovation for improving benefits and services (ILO, 2017c and 2018b).

Stronger social protection systems in combination with a transformative agenda for gender equality will support a multistage working life and provide more opportunities for enhanced gender equality on the labour market, particularly by allowing for a more equal sharing of care responsibilities and unpaid care work within the household and through effective access to quality services. Stronger systems also support opportunities for more decent employment in the care economy (see ILO and OECD, 2018b).

Ensuring universal social protection is one of the core elements of integrated policies to support a multistage working life, by ensuring that anyone who needs social protection can access it at any time. A call to action to achieve universal social protection by 2030 has been launched in Geneva in February 2019 by the Global Partnership for Universal Social Protection (USP2030), which is co-chaired by the World Bank and the ILO, and actively supported by several G20 members including France, Germany, Indonesia and South Africa.<sup>7</sup>

Strengthening social protection systems to support a multistage working life will be essential for ensuring a human-centered agenda for the future of work, and for reinvigorating the social contract (Global Commission for the Future of Work, 2019). Helping people to navigate the life and work transition will require strong and adaptable social protection systems, including a strong social protection floor (ILO, 2017c and 2017d).

### III.3 Other policies to support new working patterns

Other policies developed and implemented so far as a response to ageing societies have a strong focus on extending the working age of older workers. This approach is still based on the dominant 3-stage work life model. Promoting a multistage work life approach requires new policies and adaption of and existing policies. A number of these policies from G20 countries are described below.

#### Financial incentives to hire and retain certain workers

Financial incentives can motivate enterprises to hire people of specific age groups or with specific characteristics (e.g. long-term unemployed or migrant workers). Australia's system of subsidies for

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<sup>7</sup> For more information, including with regard to joining the Global Partnership for Universal Social Protection (USP2030), see [www.usp2030.org](http://www.usp2030.org).

older workers to return to the labour force was very successful: Labour force participation of older workers increased considerably following the implementation of wage subsidies for enterprises that were willing to hire them<sup>8</sup>. Singapore had a similarly positive experience with its subsidies program and recently extended the program<sup>9</sup>.

Examples from Finland and Belgium show that wage subsidies may prevent premature transitions to early retirement. In Finland, where workers are entitled to switch to part-time early retirement at age 58, a large-scale wage subsidy program was available from 2006 to 2010 for all full-time low-wage workers aged 54 years or older. The share of the age group 58 years and older working part-time fell substantially after the subsidy program was introduced, while there was no change in younger, unsubsidized age groups. Belgium introduced a similar policy in 2002: a permanent wage subsidy (a reduction in employers' social security contributions) targeted to workers aged 58 or older. An increase in employment occurred only in the manufacturing sector, where most workers have the option of taking early retirement. Again, this indicates that the subsidy made early retirement less attractive.

Effective financial incentives (for workers and/or employers) have been applied for young people and long-term unemployed. This approach could be applied to foster career changes throughout the life-cycle. The main risk of wage subsidies is that it could crowd out unsubsidised work. This is why such systems need to be very carefully designed, time-bound and monitored.

### Employment Services

Beyond training measures, public employment services include career guidance services. Many public employment services (PES) offer specific services for older people and could extend their services to people willing to transit from one job to another at several stages of their work life. In 2011, the European Commission launched a "PES to PES Dialogue" programme that fosters mutual learning support programmes for PES (see Scoppetta, 2013). During several events, services for older people were the focus<sup>10</sup>. Experience in PES for older people shows that specific expertise is required among counsellors to help address motivational issues, health, self-perceptions about the ability to learn, and to provide tailored skills enhancement. PES have an important role to play in providing measures to recognise and enhance existing skills through training and other measures. Similar PES expertise is also required to provide services to employers to address negative attitudes towards older workers and to assist them with workforce planning and measures to maintaining employability and workability throughout working life. Moreover, PES have a key role to play the accreditation of prior learning (Hake, 2011).

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<sup>8</sup> For details see: <https://www.jobs.gov.au/restart-help-employ-mature-workers-0>

<sup>9</sup> See <https://www.sec.gov.sg/Pages/Home.aspx>

<sup>10</sup> For example: <https://ec.europa.eu/social/main.jsp?langId=en&catId=105&newsId=1300&furtherNews=yes>



### Changing perceptions on the employers' side

Longevity with a company generally translates into higher wages, which is often used as an argument to prevent older workers from continuing to work or to discourage their hiring. At the same time, many enterprises find the institutional knowledge, commitment to the enterprise, and low absence rates of older workers an asset. For example in the US between 1985 and 2010, real labour earnings of 60-64 year old workers increased by 54 per cent, for 65-69 year old workers by 164 per cent and for 70-74 year old workers it tripled. By comparison, average labour earnings for 35-54 year old workers increased only 14 per cent during that time (Burtless, 2013). This increase in labour earnings clearly reflects the interest of employers to benefit from the experience of older workers. A number of businesses use mentoring and advisory strategies to take full advantage of older workers' years of experience on the job (AARP and Oxford Economics, 2016).

The belief that older workers are less productive is based on common assumptions about declining health and physical capacity for strenuous work. These assumptions derive from easily measurable and trackable biometric variables (such as muscle strength, sight, and organ function), whereas equally important attributes (such as experience and the ability to deal with different kinds of people) are harder to measure. Ease of measurement creates a bias toward biometric factors, which tend to decline with age, while strengths that older people have in the workplace tend to get ignored (Börsch-Supan, 2014; Morschhäuser and Sochert, 2006). Similarly, some aspects of cognition (such as memory and reaction speeds) slow with age while "crystallized intelligence" (such as access to vocabulary, facts, and procedural knowledge) stays steady or even increases for people in their 70s and 80s (Belbase and Sanzenbacher, 2016). On the individual worker level, productivity has been shown to increase up to the age of 65, even in work environments requiring substantial physical strength (Belbase and Sanzenbacher, 2016; Börsch-Supan, 2013; Börsch-Supan and Weiss, 2016). Another study showed higher rates of inventive activity in countries with older societies. In 33 countries between 1960 and 2012, inventive activity was at its peak in countries with dependency ratios similar to those in Japan and Germany at the turn of the 21st century (Irmén and Litina, 2017). One extensive study of a German car manufacturer with plants in Asia, Europe, and the US found that average productivity actually increased in those workers who remained employed up to age 65 (Börsch-Supan and Weiss, 2016). In establishments that apply mixed-age working teams the relative productivity contributions of old and of young employees are significantly higher than in establishments without this practice (Göbel and Zwick, 2012).

Another perception is that older workers take more sick leave. However, people are not only getting older but are also ageing healthier, as shown by the substantial "compression of morbidity" that has been observed in the US and other developed countries. This is because people are able to manage chronic diseases over an expanded lifespan and therefore minimize the duration of functional disabilities and frailty. (Berkman et al, 2015; Börsch-Supan, 2014).

As the listed examples have shown, many perceptions regarding older people are not correct and need to be addressed. To overcome them at the enterprise level, intergenerational teams could be promoted. At the level of societies, awareness campaigns could be launched to fight prejudice<sup>11</sup>.

Little is known about perceptions regarding people changing their career path regularly. It seems that they are considered to be less loyal towards their enterprises and that they have a reputation of being “unstable”. However, the absence of solid empirical evidence makes policy design to overcome such perceptions very difficult.

### Tackling barriers on the workers side

In today’s world, a variety of innovations makes an extended work-life easier, including alternative work arrangements (e.g. flexible working times and working remotely), safer and healthier workplaces, extended public transportation coverage, technological advances (e.g. self-driving vehicles and ride-sharing services), and the knowledge focus of many jobs (AARP and Oxford Economics, 2016).

Businesses are experimenting with flexible work arrangements that can maximize the benefits older employees bring. For example, MITRE’s “Reserves at the Ready” program brings retirees back to work on a part-time, on-call basis (Erfurt et al., 2012). SSP Stainless Steel Fittings has instituted a program called “Silver Eagle” that supports people who no longer want to work full-time but are not ready to retire completely. Flexible hours and scheduling allow the company to retain and target extra production help as needed, while also transferring knowledge to less-experienced workers. In some countries collective bargaining agreements cover flexible work arrangements for older workers. Such outcomes of social dialogue processes have the highest chance to really cater for the needs of both workers and employers.

Increasingly, employers have been offering teleworking arrangements for all age groups. However, first studies show that these arrangements do not necessarily contribute to better work-life balances, especially for women. For example, a study in the UK shows that both teleworking and flexitime arrangements increased the stress level of women, while having very positive effects on men (Chandola et al., 2018).

### Supporting entrepreneurship for older people and transitional entrepreneurship

Self-employment is another attractive option for older workers to maintain their productivity - including, in many cases, consulting for their former employers. People between ages 50 and 80 are more likely to be self-employed than their younger counterparts (Uzialko, 2017). People in their 50s and 60s start businesses at nearly twice the rate of those in their 20s, and they have higher startup

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<sup>11</sup> Singapore, for example, launched an awareness campaign titled ‘Tap into a Wealth of Experience’ with the aim to highlight the invaluable experience older workers bring to any organisation (<https://www.marketing-interactive.com/tafep-urges-locals-employ-older-workers/>)

survival rates. While in the US only 28 per cent of startups by younger people last longer than 3 years, the success rate is at 70 per cent for older workers (AARP and Oxford Economics, 2016; Cox et al 2014).

Entrepreneurship may be well-suited for periods in which workers are able to take certain financial risks. So far, however, entrepreneurship programs focus mainly on long-term unemployed and young people. They could be extended to all those interested in changing their career path but would need to take into account the specific needs of different age groups. For example, entrepreneurship could result in interruption of contributions to social security systems, which workers in certain age groups might not want to risk.

## IV. Concluding remarks

This paper has discussed the potential impact of ageing societies on the labour markets in G20 countries. In line with the projected longer life expectancy, people will remain economically active longer and more transitions over the life span are likely to become the new norm. This in turn will trigger a shift from the classical three-stage model towards a multi-stage working life model. Against this background, the paper has presented different policy options to address the implications of longer working lives, with a focus on skills and training and on social protection and income security to manage the transitions.

A new way of thinking by societies and individuals is needed to ensure that living longer becomes a gift rather than a burden for individuals and the society as a whole. As a starting point we need to better understand the changes happening in ageing societies, for instance through **accurate labour market data disaggregated by age groups**. Internationally comparable data on changing working patterns as a result of people's higher life expectancy is scarce. As a consequence, it is difficult to derive evidence-based policy advice and solutions on both enterprise and individual level remain to a certain extent speculative. A discussion needs to take place to identify which labour market indicators and data bases can be used or need to be developed to identify changing patterns.

Second, education and training systems of the future need to be more flexible and better able to prepare individuals to learn continuously over their life-time. An explicit commitment is required from all stakeholders to work towards **a universal entitlement to lifelong learning** that enables people to acquire skills and to continuously reskill and upskill. Governments, workers and employers have – in conjunction with educational institutions – a joint responsibility in building an effective and appropriately financed skills ecosystem. This implies the consideration of training as an investment. Various funding models exist, such as individual learning or training accounts, employer training funds or levies to build funds for education and training. Public funding to adult education and learning, complemented by active labour market policies to support transitions, are also important elements of the mix that needs to be put in place.

Third, targeted policies to strengthen social protection and income security are needed to help people navigate the various life and work transitions they will undergo. It is very likely, and to a certain extent already observable, that people will choose to work longer. However, work at later stages of life needs

to become a real choice in accordance with people's needs, aspirations and capacities. Policies need to ensure that these transitions do not put the well-being and development of people at risk. Social protection systems, including floors, need to be strengthened in order to close existing coverage gaps and to ensure **universal social protection from birth to old age**. Portability of social security benefits and income support during phases of training or reskilling are important policy measures that will support people in their transitions.

Fourth, women and men need to have equal opportunities in choosing their transition paths. This can be achieved through a **transformative agenda for gender equality** which combines employment policies and social protection policies. Such policies include, for instance, the promotion of sharing care and domestic responsibilities between women and men by establishing and expanding leave benefits which encourage both parents to share care responsibilities equally.

Fifth, a range of other policies can complement skills and social protection policies. These include financial incentives to hire and retain certain workers, adapting public employment services to multi-stage working lives, rectifying perceptions regarding older people, and fostering entrepreneurship for older people and transitional entrepreneurship.

Finally, employment-centred economic policies and development strategies are needed to generate decent and productive jobs for all working-age groups, a fair distribution of income, and increase the overall level of employment.

Targeted policies to support a multistage working life will be essential for ensuring a human-centered agenda for the future of work. To harness the full potential of prolonged working lives, a long-term vision is needed that spans the life-cycle and promotes shared responsibility of tripartite partners and solidarity among generations and population groups. Investments in people's capabilities, institutions and decent and sustainable work need to take place with intergenerational justice in mind. Policy coherence will be key to success.

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## Annexes

Table 1: Labour force participation rates (per cent) in G20 countries in 1998 and 2008, by sex and age groups

Country	Sex, Date	15-24	25-34	35-44	45-54	55-64	65+
Argentina	Female, 1998	38.5	70.1	71.3	66.1	48.9	10.9
	Female, 2018	30.1	66.9	72.1	69.9	48.5	10.3
	Male, 1998	54.6	93.7	96.8	93.9	82.4	26.2
	Male, 2018	45.3	91.4	95.2	93.7	81.4	24.0
Australia	Female, 1998	67.7	68.8	70.0	69.2	32.2	3.0
	Female, 2018	65.8	76.0	78.4	79.4	60.5	9.7
	Male, 1998	72.3	92.7	92.2	87.1	60.4	9.7
	Male, 2018	66.8	91.1	91.6	88.1	73.0	17.2
Brazil	Female, 1998	47.4	59.5	60.5	47.7	27.5	8.0
	Female, 2018	49.4	72.6	72.7	63.1	37.0	8.1
	Male, 1998	72.6	93.0	91.8	84.1	65.1	29.2
	Male, 2018	61.9	91.1	91.7	85.7	66.5	22.4
Canada	Female, 1998	60.1	78.6	79.3	74.2	38.6	3.5
	Female, 2018	63.9	82.9	83.3	83.1	61.6	10.6
	Male, 1998	63.5	92.0	92.4	88.4	58.8	10.3
	Male, 2018	63.6	90.6	92.7	89.9	71.3	18.9
China	Female, 1998	71.4	88.1	87.9	74.5	44.9	14.9
	Female, 2018	44.9	83.6	83.8	73.3	47.8	15.1
	Male, 1998	72.0	98.0	97.9	94.6	71.4	33.6
	Male, 2018	47.7	95.6	96.7	92.8	70.6	27.4
France	Female, 1998	32.0	78.7	79.8	75.8	26.2	0.8
	Female, 2018	34.0	80.3	83.8	83.6	53.6	2.6
	Male, 1998	38.1	94.7	96.6	92.8	35.4	2.0
	Male, 2018	41.4	92.0	94.2	91.4	57.4	4.0
Germany	Female, 1998	47.4	74.5	77.4	73.6	33.3	1.6
	Female, 2018	48.7	79.3	82.6	85.6	68.1	4.9
	Male, 1998	54.8	91.4	96.0	92.4	53.6	4.3
	Male, 2018	51.5	89.3	93.7	92.8	78.2	10.0
India	Female, 1998	24.6	34.4	39.4	37.9	27.0	10.4
	Female, 2018	12.8	25.2	33.0	33.3	25.8	11.3
	Male, 1998	64.8	97.6	98.6	96.6	83.2	48.6
	Male, 2018	46.2	96.7	98.7	97.3	82.5	44.0
Indonesia	Female, 1998	42.5	53.9	60.5	59.9	51.1	28.4
	Female, 2018	38.4	55.5	62.4	64.6	54.7	28.8
	Male, 1998	65.1	96.0	98.6	97.0	83.9	59.0
	Male, 2018	56.3	94.6	96.5	94.5	83.4	55.7
Italy	Female, 1998	32.8	62.1	60.3	44.4	15.1	1.5
	Female, 2018	21.7	65.0	70.5	66.5	45.3	2.3
	Male, 1998	43.7	87.8	96.5	86.9	42.9	5.6
	Male, 2018	29.5	82.3	91.6	89.9	67.6	7.3
Japan	Female, 1998	47.6	63.0	66.3	70.1	50.0	15.2
	Female, 2018	45.1	78.7	75.5	79.1	63.9	16.6
	Male, 1998	48.6	96.8	97.9	97.3	85.2	35.9
	Male, 2018	44.0	94.7	96.1	95.3	87.8	32.4
Korea, Republic of	Female, 1998	37.2	49.5	61.0	58.6	48.2	19.8
	Female, 2018	34.8	69.7	61.6	69.7	55.8	24.4
	Male, 1998	32.8	91.6	95.8	93.1	75.5	40.3
	Male, 2018	28.7	83.8	94.8	93.1	82.7	41.8

Country	Sex, Date	15-24	25-34	35-44	45-54	55-64	65+
Mexico	Female, 1998	37.7	46.5	48.5	39.5	27.8	15.3
	Female, 2018	31.2	55.2	57.5	53.5	37.2	14.7
	Male, 1998	72.0	95.4	96.8	93.6	81.6	52.7
	Male, 2018	57.6	93.7	95.6	93.2	78.0	41.9
Russian Federation	Female, 1998	37.3	78.1	86.3	81.6	19.2	6.2
	Female, 2018	29.4	83.1	90.4	89.3	40.5	4.6
	Male, 1998	43.2	91.0	90.4	86.1	43.8	12.2
	Male, 2018	37.0	96.3	95.6	92.3	61.1	8.4
Saudi Arabia	Female, 1998	8.2	29.9	22.3	8.9	3.9	0.6
	Female, 2018	8.7	35.4	36.3	19.3	5.4	0.6
	Male, 1998	31.8	95.0	97.1	89.3	66.5	32.4
	Male, 2018	28.1	94.2	98.3	93.4	70.7	27.7
South Africa	Female, 1998	28.9	66.9	69.3	58.7	34.1	4.2
	Female, 2018	24.0	67.6	74.5	65.2	36.7	3.9
	Male, 1998	34.7	86.1	89.3	83.2	61.7	15.8
	Male, 2018	28.9	81.0	87.7	84.1	54.8	10.7
Turkey	Female, 1998	31.6	31.4	31.9	28.7	25.6	13.3
	Female, 2018	31.3	47.1	47.1	36.1	19.1	5.4
	Male, 1998	61.9	96.8	96.3	79.9	58.6	33.9
	Male, 2018	56.2	93.3	94.8	84.1	55.0	20.3
United Kingdom	Female, 1998	60.2	73.8	76.4	75.5	39.8	3.4
	Female, 2018	56.2	80.3	80.6	82.0	61.5	7.6
	Male, 1998	68.0	93.7	92.5	87.6	62.6	7.7
	Male, 2018	57.7	93.3	93.5	90.6	72.5	14.0
United States	Female, 1998	60.6	76.3	77.1	76.2	51.1	8.6
	Female, 2018	50.8	75.4	74.8	74.3	59.1	15.9
	Male, 1998	65.5	93.2	92.6	89.2	67.9	16.5
	Male, 2018	52.8	88.7	90.7	86.3	70.7	24.1
European Union	Female, 1998	41.4	73.7	75.1	67.0	28.2	3.7
	Female, 2018	39.2	78.0	81.5	80.2	54.4	4.0
	Male, 1998	49.2	92.2	94.7	88.9	50.5	7.6
	Male, 2018	44.0	90.5	93.7	90.7	68.2	8.4
G20	Female, 1998	46.9	66.2	68.6	62.9	37.5	10.6
	Female, 2018	31.4	60.2	64.1	63.0	44.3	12.6
	Male, 1998	64.8	96.3	96.6	93.2	70.8	29.9
	Male, 2018	48.5	94.5	96.2	93.0	74.0	28.4

Source: ILOSTAT Labour Force Estimates and Projections

Table 2: Changes in labour force participation rates (percentage points) in G20 countries between 1998 and 2008, by sex and age groups

Country	Sex	15-24	25-34	35-44	45-54	55-64	65+
Argentina	Female	-8.4	-3.1	0.8	3.8	-0.4	-0.6
Argentina	Male	-9.2	-2.3	-1.7	-0.2	-1.0	-2.2
Australia	Female	-1.8	7.2	8.5	10.3	28.3	6.7
Australia	Male	-5.5	-1.6	-0.5	1.0	12.6	7.5
Brazil	Female	2.0	13.1	12.2	15.4	9.4	0.0
Brazil	Male	-10.6	-1.9	-0.2	1.6	1.4	-6.8
Canada	Female	3.8	4.3	4.0	8.8	22.9	7.1
Canada	Male	0.1	-1.4	0.3	1.5	12.6	8.6
China	Female	-26.6	-4.5	-4.1	-1.3	2.9	0.2
China	Male	-24.3	-2.4	-1.3	-1.7	-0.9	-6.2
France	Female	2.1	1.7	4.0	7.7	27.5	1.8
France	Male	3.4	-2.6	-2.4	-1.3	21.9	2.1
Germany	Female	1.4	4.8	5.2	11.9	34.7	3.3
Germany	Male	-3.3	-2.1	-2.2	0.4	24.6	5.7
India	Female	-11.9	-9.2	-6.4	-4.6	-1.2	0.9
India	Male	-18.5	-1.0	0.2	0.6	-0.7	-4.6
Indonesia	Female	-4.1	1.6	1.9	4.7	3.6	0.5
Indonesia	Male	-8.9	-1.4	-2.1	-2.4	-0.5	-3.3
Italy	Female	-11.1	2.9	10.2	22.1	30.2	0.7
Italy	Male	-14.2	-5.5	-5.0	3.0	24.6	1.6
Japan	Female	-2.5	15.7	9.2	9.0	13.9	1.4
Japan	Male	-4.6	-2.2	-1.8	-2.0	2.6	-3.5
Korea, Republic of	Female	-2.4	20.1	0.7	11.0	7.6	4.6
Korea, Republic of	Male	-4.1	-7.9	-1.0	0.0	7.2	1.4
Mexico	Female	-6.5	8.7	9.0	14.0	9.4	-0.6
Mexico	Male	-14.4	-1.6	-1.2	-0.4	-3.5	-10.8
Russian Federation	Female	-7.9	5.1	4.0	7.7	21.3	-1.6
Russian Federation	Male	-6.2	5.3	5.2	6.2	17.3	-3.8
Saudi Arabia	Female	0.5	5.4	14.0	10.3	1.5	0.0
Saudi Arabia	Male	-3.7	-0.9	1.2	4.1	4.1	-4.8
South Africa	Female	-5.0	0.7	5.2	6.4	2.6	-0.3
South Africa	Male	-5.9	-5.0	-1.6	0.9	-6.9	-5.1
Turkey	Female	-0.3	15.7	15.2	7.3	-6.5	-7.9
Turkey	Male	-5.6	-3.5	-1.5	4.3	-3.6	-13.6
United Kingdom	Female	-4.0	6.5	4.2	6.5	21.7	4.2
United Kingdom	Male	-10.4	-0.4	1.0	3.0	9.8	6.3
United States	Female	-9.8	-0.9	-2.2	-1.9	8.0	7.2
United States	Male	-12.7	-4.5	-2.0	-2.9	2.8	7.7
European Union	Female	-2.2	4.3	6.4	13.2	26.2	0.3
European Union	Male	-5.2	-1.8	-1.0	1.8	17.7	0.8
G20	Female	-15.5	-6.0	-4.6	0.2	6.9	2.0
G20	Male	-16.3	-1.8	-0.5	-0.2	3.1	-1.5

Source: ILOSTAT Labour Force Estimates and Projections

Notes: In green: Countries with highest increases of labour force participation rate in a certain age group; in red countries with highest decreases in the respective age group. For example: The United States saw for man a considerable decrease in labour force participation rates for all age groups except the two oldest age groups (55-64 and 65+). For the 65+ the increase was amongst the ten highest increases for man in this age group amongst all G20 countries.