

Getting Skills Right

Trends in Adult Learning

New Data from the 2023 Survey of Adult Skills



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OF ADULT SKILLS

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Foreword

Adult learning is a key policy lever for governments to respond to the rapid evolution of skills demands resulting from technological and demographic changes, the transition to a low-carbon economy and changing supply chains. Over the past decade, countries in the OECD and beyond have introduced reforms aimed at widening access and making learning opportunities more responsive to the diverse circumstances of adult learners. These initiatives signal an understanding that learning should not stop after formal schooling and that continuous skills development is key to support both the life prospects of individuals and the resilience of economies.

This PIAAC thematic report describes trends in adult learning in the countries participating in the 2023 Survey of Adult Skills. It examines patterns of participation, the content and delivery of learning, and the barriers that limit access, particularly for disadvantaged groups. It provides insights into how policies and practices can be redesigned to better support adult learners in a rapidly changing labour market. It has been prepared as part of the work programme of the Board of Participating Countries (BPC) of the OECD Programme for the International Assessment of Adult Competencies (PIAAC).

The BPC provides strategic oversight and guidance for the development and use of the Survey of Adult Skills. The Survey of Adult Skills assesses adults' proficiency in key information processing skills – literacy, numeracy and adaptive problem solving – and collects a wide range of information on how adults use their skills at work and in everyday life. By enabling cross-country comparisons and in-depth policy analysis, the survey helps countries to better understand how skills are developed, maintained and used over the life course.

The report was prepared by Anja Meierkord and Roland Tusz from the Directorate for Employment, Labour and Social Affairs, under the supervision of Glenda Quintini (Head of the Skills and Future Readiness Division). Valuable comments were received by numerous colleagues, including Elif Bahar, Magdalena Burtscher, Shizuka Kato, Julie Lassébie, Patricia Navarro-Palau and Ada Zakrzewska (Directorate for Employment, Labour and Social Affairs); Francesco Avvisati, Francois Keslair, Marco Paccagnella and Mila Staneva (Directorate for Education and Skills); and Francesca Borgonovi (Centre for Skills). The authors would like to thank the delegates of the BPC for their guidance and feedback throughout the development of this report.

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Executive summary

Adult learning participation stagnates

Participation in adult learning varies widely across countries, despite shared ambitions to widen access and achieve common goals. On average, around 40% of adults in OECD countries participate in learning each year, although national figures range from 58% in Finland and Norway to 13% in Korea. English-speaking and Nordic countries tend to have the highest levels of participation.

However, participation appears to be falling in many countries, which is a worrying trend given the critical role of adult learning in adapting to economic and technological change. Only Ireland and Estonia have seen significant growth in adult learning participation – around 5 percentage points – driven by increased participation in non-formal job-related learning. Meanwhile, countries such as Korea and Israel have seen significant declines.

While participation gaps between socio-economic groups persist, some are narrowing – not because disadvantaged groups are participating more, but because declines are steepest among those who once led in participation: men, high earners and highly-educated workers in skilled roles. For example, the gender gap has effectively closed due to a sharper drop among men than women. These shifts underscore a concerning trend: even as gaps narrow, overall participation is declining. This reinforces the need for targeted policies that remove structural barriers and expand access for those who would benefit most.

In countries where participation in adult learning is falling, average literacy proficiency is also more likely to have fallen. While causality cannot be established, the relationship points to a broader issue: limited access to learning opportunities may undermine adults' ability to maintain and develop information-processing skills, while at the same time low levels of information-processing skills may function as a barrier to further learning. Together, these trends could suggest a mutually reinforcing cycle that risks skill deterioration over time.

Short and compliance-based training dominate

Formal education is playing a diminishing role in adult learning. On average across OECD countries, just 8% of adults are enrolled in formal learning programmes, and participation has declined by more than two percentage points between survey cycles. In contrast, non-formal job-related learning remains more widespread, with 37% of adults participating on average. While non-formal learning has also declined slightly – by around 3 percentage points – this trend is not universal. Five countries or economies (England [UK], Estonia, the Flemish Region of Belgium, Ireland, and Italy) have recorded statistically significant increases in non-formal job-related learning. Notably, countries with strong performance in one form of learning tend to perform well in the other, suggesting that both are supported by robust, well-developed adult learning systems. For instance, Finland, Norway, and the United States – countries where over half of adults participated in non-formal job-related learning in the 12 months prior to the survey – all have above-average rates of participation in formal adult learning as well.

Tertiary qualifications dominate among adult learners in formal education. On average, 65% of formal adult learning is at tertiary level, ranging from 90% in Italy and the Czech Republic (Czechia) to less than 40% in Canada. In some countries, most formal adult learning is for post-secondary diplomas (e.g. Canada, the United States), while in others it is mainly second-chance education for adults (e.g. England, France – Spain). Health and safety training is the most common type of non-formal job-related learning (18% of all learning in this category). Although essential, its predominance – particularly in countries where it accounts for a quarter or more of all such learning (Finland, Ireland, Italy, Norway, the Slovak Republic) – suggests that an even smaller proportion of training is devoted to reskilling and upskilling to meet changing labour market needs.

A large proportion of non-formal job-related learning consists of very short activities. Some 42% of non-formal job-related learning activities last one day or less, and a further 40% last between one day and one week. While short formats promote participation, over-reliance on them may limit the potential for deeper or more transformative reskilling. Modular learning pathways and stackable qualifications can help short courses to deliver meaningful skills gains over time.

Unemployed adults tend to engage in longer trainings. While for adults who are employed, just 15% of them participated in non-formal job-related learning activities that lasted for longer than a week, 38% of unemployed adults did so. Unemployed adults have fewer time constraints, as they are not balancing work-related responsibilities. Additionally, the training needs of employed and unemployed adults often differ. Employed adults typically require short, targeted learning activities to acquire specific skills that complement their current job tasks. In contrast, unemployed adults may need more comprehensive training to develop a broader range of skills, making them more competitive in the job market and improving their employability.

Barriers to adult learning remain widespread and uneven

Improving job performance and employability remains the main motivation for adult learners. This motivation has remained consistent over the last decade. Most adults find training useful. Almost half of all learners rate their training as very useful, and more than three-quarters find it at least moderately useful. Countries where training is perceived as more useful tend to show higher participation.

However, half of all adults across the OECD on average neither participated nor wanted to participate in adult learning in the 12 months preceding the survey. For those who wanted to participate, barriers to participation remain widespread. One in four adults encountered a barrier to participating in adult learning in the 12-month period preceding the survey. The most commonly cited reasons are lack of time – due to work or family commitments – and cost. These challenges are more acute for some groups. Women, younger people and those with higher levels of education are most likely to report barriers.

Employers play a critical role. Most training takes place in the workplace and during working hours; employer support is one of the strongest predictors of participation. The proportion of adult learning that takes place during working hours has increased in most countries since the first PIAAC cycle, although only significantly in some places. Partnerships between governments and business leaders can help to improve access to high quality, relevant learning opportunities. Training also supports workforce adaptation. More than half of adults whose jobs have changed in the last three years report having received training to help them adapt. Support is particularly common in workplaces undergoing technological change, such as the introduction of new digital systems.

A paradigm shift in adult learning policy is needed

Adult learning systems are under pressure. Despite widespread recognition of the need for lifelong skills development, participation remains low and uneven. Cost and time barriers continue to exclude those most in need, and public investment is still heavily skewed towards initial education.

Too often, training is reactive and focused on basic compliance rather than equipping workers with transferable skills for future roles. To meet the demands of fast-moving labour markets, policy must shift from fragmented, short-term solutions to comprehensive strategies that integrate funding, employer engagement and flexible delivery models. Only a bold, systemic reform agenda can ensure that all adults have meaningful opportunities to develop the skills they need to thrive.

1 Where, what and how are adults learning?

Widespread participation is essential if adult learning is to be effective in supporting individual careers, business performance and economic resilience. Broad and continuous participation also ensures that adults' skills remain up to date and avoid more significant retraining when transitions to new jobs or roles are unavoidable. However, data from the 2023 Survey of Adult Skills show that participation in learning has stagnated or declined in most of the countries and economies participating in the survey. This chapter examines key aspects of participation in adult learning, focusing on the nature of adult learning, the level and intensity of participation, and the prevalence of flexible learning provision. It analyses how participation has evolved in the last decade and reflects on how these trends relate to those observed in foundational skills.

Adult learning at a crossroads: Persistent differences and overall stagnation

- **There are persistent differences across countries in participation in adult learning.** Despite efforts to widen access and achieve common targets, participation in adult learning remains very uneven. On average across the OECD countries that participated in PIAAC, two in five adults engage in adult learning each year, but rates range from 58% in Norway to 13% in Korea. Nordic and English-speaking countries show the highest levels of participation.
- **Participation in adult learning has fallen in more countries than it has risen.** This is despite adult learning being a central component of the policy response to the challenges of technological and economic change. Only in Ireland and Estonia has participation in adult learning increased over the past decade, by around 5 percentage points (pp). These increases are driven by higher participation in non-formal job-related learning. Participation has fallen in many countries, most notably in Korea (-26 pp) and Israel (-16 pp). (See Box 1.3 and Box 1.5 for a note on comparison between cycles.)
- **Declining adult learning participation is correlated with skills erosion.** Countries experiencing the sharpest declines in literacy skills also tend to have declining participation in adult learning. While causality cannot be established, reduced formal, non-formal and informal learning opportunities may limit the ability of adults to maintain and develop foundational skills.
- **Formal learning plays a limited and declining role in the training of adults, but non-formal learning is widespread.** Across the OECD, only 8% of adults participate in formal education, while 37% participate in non-formal learning. Countries with high levels of participation in formal education also tend to have high rates of non-formal learning, suggesting that robust adult learning systems encourage participation in both forms.
- **When adults participate in formal learning, they tend to take tertiary degrees.** On average, 65% of formal adult learning is at tertiary level, ranging from 90% in Italy and the Czech Republic to less than 40% in Canada. In some countries, most formal adult learning is to achieve post-secondary diplomas (e.g. Canada, the United States), while in others most is second-chance education for adults (e.g. England [United Kingdom], France, Spain).
- **Non-formal learning is dominated by compliance-based training.** Health and safety training is the most common form of non-formal job-related learning (18%), particularly in Finland, Ireland, Italy, Norway, Slovak Republic, where it accounts for 25% or more of non-formal job-related learning. IT and digital skills training is also common across countries (14%). While health and safety training is necessary, greater emphasis on broader skills development, especially digital and technical skills, is needed to match labour market needs.
- **Many non-formal courses are very short, raising concerns about long-term skills development for structural changes.** 42% of non-formal learning activities last a day or less, and 40% last between a day and a week. Countries with shorter courses tend to have higher participation rates, but an over-reliance on short courses may limit the fundamental reskilling needed in the context of structural change. Modular and stackable learning pathways can ensure that short courses contribute to meaningful upskilling and reskilling.
- **There are substantial cross-country differences in informal learning at work:** Two in three employed adults report learning new things at work at least once a month. Daily learning at work is highest in Portugal (41%), Chile (40%) and Spain (35%) and lowest in Poland (4%).

Introduction

Adult learning (Box 1.1) has become a central component of policy responses to the challenges of technological, economic and social change. Over the past decade, countries across the OECD and beyond have made efforts to widen access to learning opportunities and increase their flexibility to better meet the diverse needs of adults. These efforts reflect a growing recognition that learning extends beyond initial education and that lifelong skill development is essential for both individual well-being and economic resilience.

This chapter provides a comprehensive analysis of adult learning participation in 2023, based on data collected through the 2023 Survey of Adult Skills. The Survey of Adult Skills is a product of the Programme for the International Assessment of Adult Competencies (PIAAC). It is a large-scale, computer-based household survey of adults aged 16-65, conducted in ten-year cycles. Its core objective is to assess adults' mastery of key information-processing skills – literacy, numeracy and problem solving – that are essential for individuals to participate fully in society and for economies to thrive. Data collection for the 2023 Survey of Adult Skills took place in 2022 and 2023, covering 31 countries and economies. In addition to measuring skills, the survey provides insights into how adults develop and use these skills in everyday life and in the workplace (OECD, 2024^[1]; OECD, 2024^[2]).

This chapter examines key aspects of learning participation, focusing on the type of adult learning, the level and intensity of participation, and the prevalence of flexible learning options such as online and hybrid courses. It analyses participation trends over the past decade and reflects on how these trends relate to trends observed in information-processing skills. In doing so, it highlights the difficulties of comparing participation in adult learning between the 2023 Survey of Adult Skills and Cycle 1 a decade earlier. This is primarily due to changes in the wording of questions to capture participation in non-formal learning (see Box 1.3 and Box 1.5).

To exclude younger adults still in initial education and to concentrate on adults undertaking formal and non-formal learning that is more closely linked to jobs, the analysis focuses on job-related adult learning for the population aged 25-65, disregarding learning for other personal or societal reasons.¹

Box 1.1. Defining adult learning

In this report, adult learning is understood as the job-related learning of adults who have left initial education and training and entered working life. However, it should be noted that data from the 2023 Survey of Adult Skills does not make an explicit distinction between adults who participate in formal education above the age of 25 as part of prolonged participation in initial education and training, and those for whom this learning takes place after having worked for some time.

Job-related learning refers to education and training undertaken for the purpose of acquiring skills for a current or future job, while recognising that non-job-related ‘leisure’ learning can also provide individuals with valuable skills for the labour market.

Adult learning in this report encompasses three types of learning and is measured as follows in the 2023 Survey of Adult Skills:

- **Formal learning** (accredited education and training) is intentional, institutionalised learning that has a minimum duration of one semester and is recognised by relevant authorities. Examples include vocational qualifications or a bachelor’s degree. In this report, all formal adult learning is considered to be job-related. The 2023 Survey of Adult Skills asked adults i) if they were currently studying towards a qualification, ii) if they finalised a qualification in the past 12 months before the interview; and iii) if they had interrupted studies towards a formal qualification in the past 12 months before the interview. All cases are included in the indicator for formal adult learning participation.
- **Non-formal learning** (unaccredited education and training) is intentional, institutionalised learning that is either of short duration (less than one semester) or not recognised by relevant authorities. Examples include non-formal qualifications obtained from short courses and workshops. The 2023 Survey of Adult Skills asked adult if they participated in an organised learning activity, ‘different’ from studying towards a qualification, which could include training activities such as courses, webinars, workshops, lectures or private lessons. Adults were also asked whether these non-formal learning activities were job-related or not. Slightly over 80% of adults, on average, report that their training is job-related.
- **Informal learning** is intentional, non-institutionalised learning that is less structured than formal and non-formal learning and can take place anywhere. Examples include learning from colleagues or learning by doing. The 2023 Survey of Adult Skills asked adults to assess the frequency at which they i) learnt new things at work; ii) learnt by doing, and iii) kept up to date with new products and services.

Source: Eurostat (2016^[3]), Classification of learning activities – Manual: 2016 edition, <https://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/ks-gq-15-011>; OECD (2023^[4]), Flexible Adult Learning Provision: What it is, why it matters and how to make it work, https://www.oecd.org/content/dam/oecd/en/topics/policy-sub-issues/adult-learning/booklet-flexibility-2023.pdf/jcr_content/renditions/original/booklet-flexibility-2023.pdf.

Participation in formal, non-formal and informal adult learning

Adult learning takes three main forms: formal, non-formal and informal (see Box 1.1). Formal learning is structured, deliberate and leads to a recognised qualification, usually provided by educational institutions. Non-formal learning is also structured but shorter and more flexible, often taking place in workplace training, workshops or community courses. While traditionally separate from formal education, non-formal learning is increasingly being certified and included in national qualifications frameworks, blurring the

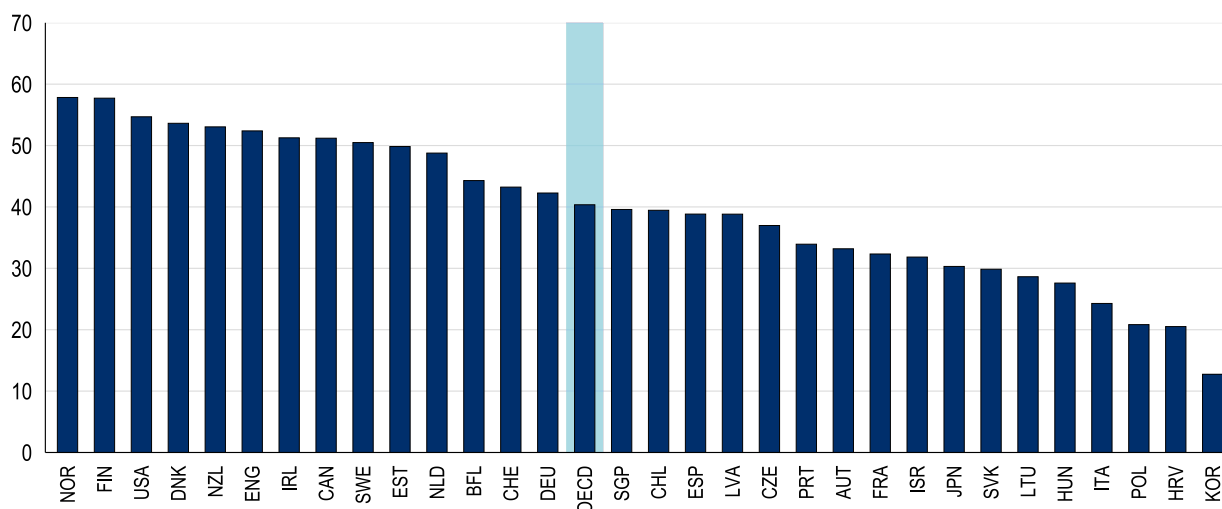
boundaries between the two forms. This report focuses on non-formal learning activities that respondents reported as being job-related. Informal learning, by contrast, is unstructured and occurs through everyday activities, for example in learning by doing or learning from colleagues and supervisors. Comparing participation in different types of learning – formal, non-formal and informal – helps policymakers to understand and benchmark the performance of their adult learning systems.

Two in five adults participate in formal or non-formal adult learning

Two in five adults in the OECD area² participate in formal or non-formal adult learning (Figure 1.1). Participation rates vary considerably between countries, with some countries achieving more than three times the rates of others. The highest rates were recorded in Finland and Norway (both 58%), closely followed by the United States (55%), Denmark (54%) and New Zealand (53%). At the other end of the spectrum, participation was comparatively low in Korea (13%), Croatia (20%) and Poland (21%). These differences highlight regional patterns: Nordic and English-speaking countries tend to have relatively high participation rates, while lower rates are more common in Southern, Central and Eastern European countries. This may reflect differences in the accessibility, relevance, and flexibility of adult learning systems, adult learning cultures and labour market structures.

Figure 1.1. Participation is highest in Nordic and English-speaking countries

Share of adults who participated in formal or non-formal job-related adult learning, %



Note: Adults aged 25-65, formal and non-formal job-related learning in the 12 months prior to the survey. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

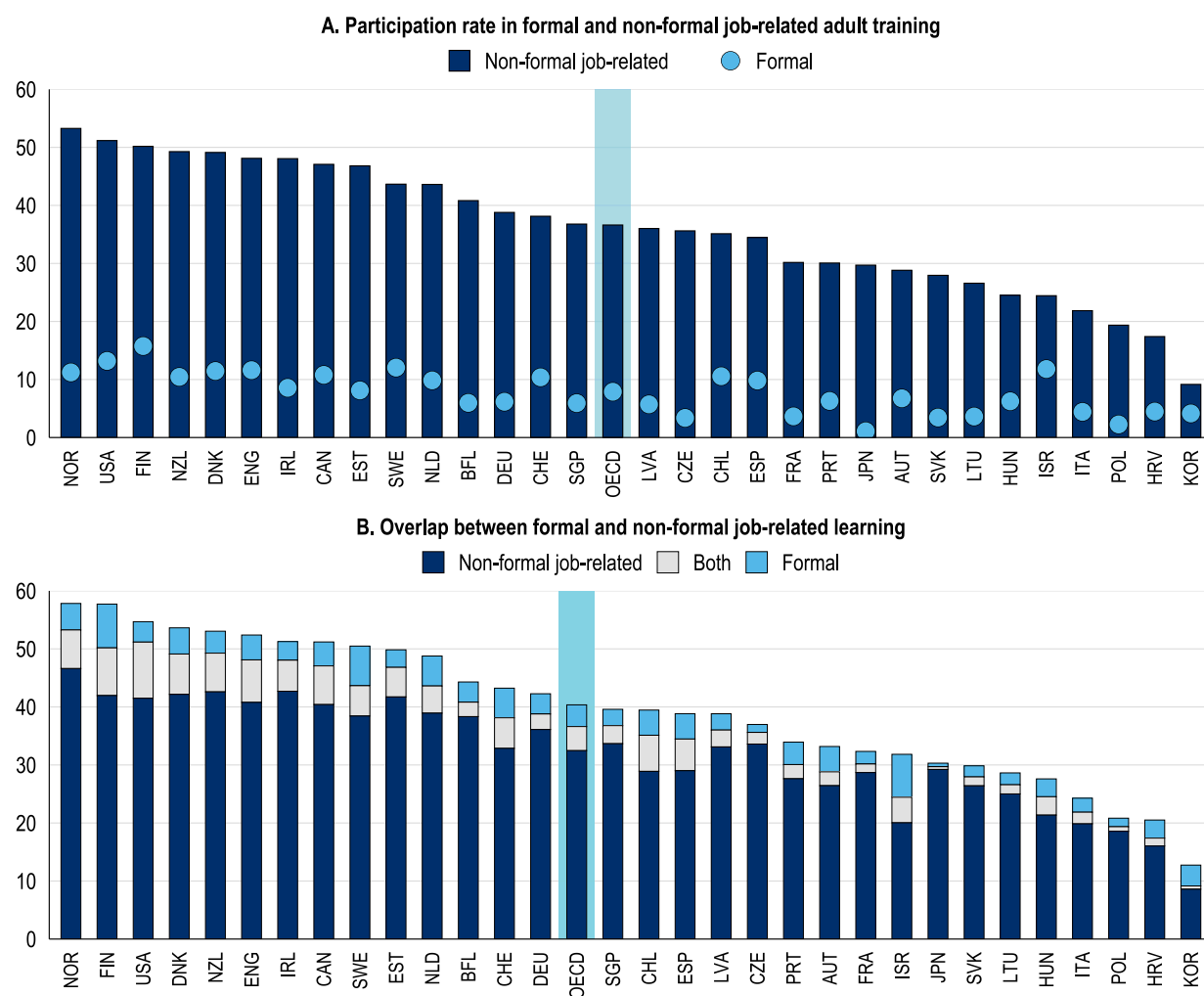
Source: OECD (n.d._[5]), Survey of Adult Skills (PIAAC) (2023) Database, <http://www.oecd.org/en/about/programmes/piaac/piaac-data.html>. Underlying data are reported in the accompanying Appendix Tables, available at https://www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

In all countries participating in the 2023 Survey of Adult Skills, adults are more likely to participate in non-formal learning than in formal learning (Figure 1.2). On average across the OECD, 8% of adults participate in formal learning, while 37% of adults participate in non-formal learning (Panel A). There is some overlap between the two types of learning, with a proportion of adults participating in both (Figure 1.2 B). On average, 4% of adults participate in both formal and non-formal learning, 32% in non-formal learning only and 4% in formal learning only. The largest overlaps occur in countries with the highest participation rates, such as Finland and the United States, where more than 8% of adults participate in both types of learning.

Participation in formal adult learning tends to be highest in countries with the highest overall participation rates, such as Finland, Sweden and the United States (all 12% or above), and lowest in Japan (1%) and Poland (2%). A similar pattern is observed for non-formal job-related learning, with Finland, Norway and the United States displaying participation of 50% or above. The lowest rates are observed in Korea (9%), Croatia (17%) and Poland (19%).

Figure 1.2. Non-formal learning outstrips formal learning worldwide

Share of adults who participated in formal or non-formal job-related learning in the 12 months prior to the survey, %



Note: Adults aged 25-65. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.[5]), Survey of Adult Skills (PIAAC) (2023) Database, <http://www.oecd.org/en/about/programmes/piaac/piaac-data.html>. Underlying data are reported the accompanying Appendix Tables, available at https://www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

There is a strong positive correlation between participation in formal and non-formal learning at the country level. Countries with high levels of participation in formal adult education also tend to have higher levels of non-formal learning (Figure 1.3). This suggests that adult learning systems are generally more developed in some countries than in others, based on lifelong learning cultures, institutional frameworks that encourage participation in both formal and non-formal adult learning and the characteristics of national industrial structures.

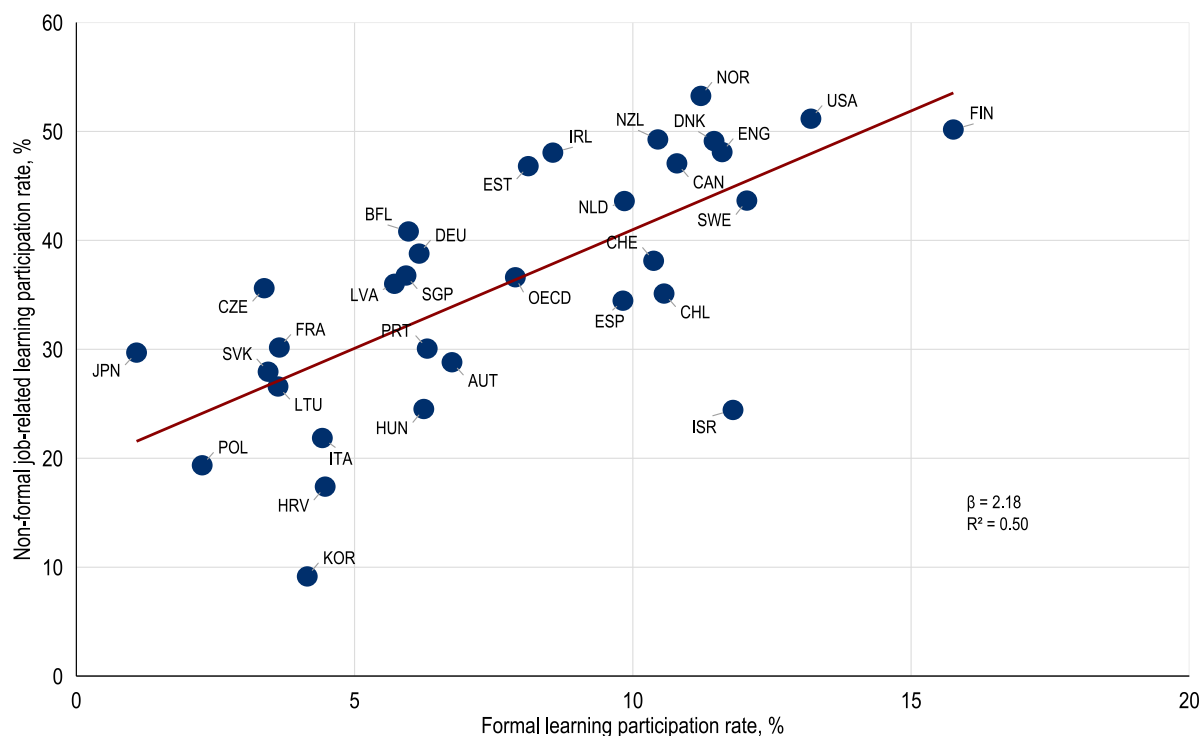
Looking beyond this general pattern, however, there are important variations that provide further insights into the functioning of adult learning systems. Some countries – such as Estonia, Japan, and Norway – have significantly higher levels of non-formal learning than would be expected given their levels of formal participation. This suggests that these countries place a strong emphasis on continuous skills development through shorter, more flexible learning opportunities outside traditional educational settings. It may also indicate the existence of policies to promote employer-led training, incentives for continuous professional development, or a strong provider landscape that facilitate participation in non-formal learning. Conversely, countries such as Chile, Israel and Korea show a stronger emphasis on formal learning, with comparatively lower levels of non-formal learning participation. This may reflect systems where formal qualifications are important for skill recognition and career progression, potentially making non-formal learning less attractive or necessary. It may also reflect a structural preference for qualification-based learning pathways, where job-related training is more likely to take place in traditional educational institutions than in the workplace.

Finally, the difference in participation rates between formal and non-formal learning in a given country may be related to the age at which adults are most likely to complete tertiary education and to the overall age composition of the adult population. For example, if younger adults, who are more likely to pursue a tertiary degree, represent a comparatively small proportion of the population, this could result in lower participation rates in formal learning than in non-formal learning.

Countries seeking to increase participation in adult learning should consider not only the quantity but also the balance of learning opportunities available, ensuring that both formal and non-formal pathways are available to support skills development in an accessible and flexible way.

Figure 1.3. Strong adult learning systems foster both formal and non-formal learning

Correlation between the non-formal job-related and formal learning participation rate



Note: Adults aged 25-65. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[5]), Survey of Adult Skills (PIAAC) (2023) Database, <http://www.oecd.org/en/about/programmes/piaac/piaac-data.html>. Underlying data are reported the accompanying Appendix Tables, available at https://www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Most people participate in non-formal adult learning at some point in their life

In many countries, participation in non-formal learning at some point in life is the norm. In Denmark, Estonia, Finland and Norway almost all adults – more than nine out of ten or more – report having participated in non-formal learning during their lifetime (Figure 1.4). In Korea, by contrast, just over one in three adults say to have ever participated.

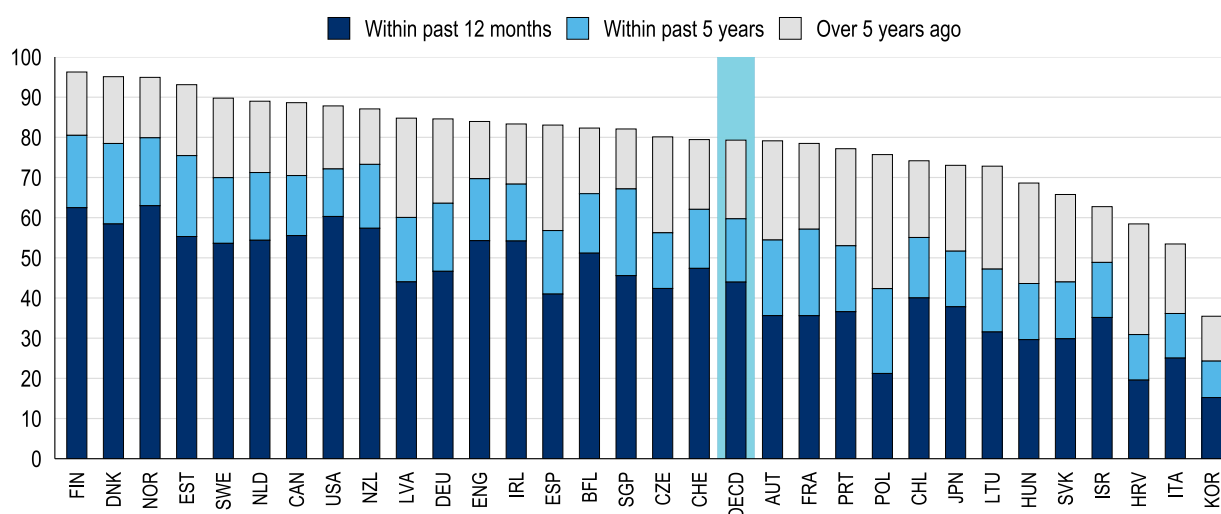
Countries with high levels of lifelong participation also tend to have higher proportions of adults who have participated in learning in the last 12 months. This pattern may indicate that some countries have well-established learning cultures and systems that support sustained engagement, enabling adults to return to learning throughout their lives. By contrast, a higher share of less recent learning experiences may signal a deterioration in learning opportunities, whether due to reduced access, weaker incentives or changing perceptions of the value of adult learning. These trends underline the importance of policies that not only encourage one-off participations but ensure that learning remains accessible and relevant over time.

By capturing both recent and longer-term training histories, the 2023 Survey of Adult Skills improves the understanding of who participates in learning and when, providing a richer basis for analysing lifelong learning and its implications for policy. For example, recent learning (within the last five years) seems to be more closely associated with positive outcomes such as higher earnings and employment. At the same time, the data highlight gaps: older adults and those with lower levels of education are more likely to have

participated in training more than five years ago, reflecting the challenges of maintaining access to learning opportunities over time (OECD, Forthcoming^[6])

Figure 1.4. Non-formal learning at some point during one's life is the norm

Share of adults who participated in non-formal learning at any time in their life, %



Note: Adults aged 25-65, non-formal learning. OECD is an unweighted average of all participating member countries.

Source: OECD (n.d.^[5]), Survey of Adult Skills (PIAAC) (2023) Database, <http://www.oecd.org/en/about/programmes/piaac/piaac-data.html>. Underlying data are reported the accompanying Appendix Tables, available at https://www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Informal learning is extremely common, but not everywhere

Informal learning is a part of life and of working life in particular. However, it can be difficult to measure (Box 1.2). Most employees regularly acquire new knowledge and skills in their job, although the frequency of such learning varies considerably between countries (Figure 1.5). On average across the OECD, more than nine out of ten employed adults report that they learn new things at work at least occasionally (Panel A): 22% say this happens every day, while 23% report learning at least once a week, 23% at least once a month and 24% less than once a month. Portugal (41%), Chile (40%) and Spain (35%) stand out as the countries where employees are most likely to say they learn new things every day, while Poland (4%), Lithuania and Korea (9%) have the lowest shares. Other dimensions of informal learning have similarly large gaps in the share of adults who report informal learning on a daily basis. Switzerland has the highest proportion of employees reporting that they learn at least once a week or more (66%). At the other end of the spectrum, more than one in five employees in Lithuania and Korea say they never learn anything new at work.

Box 1.2. Informal learning in the 2023 Survey of Adult Skills

Informal learning is a critical component of adult learning. It encompasses activities embedded in everyday tasks and interactions, making it a vital yet challenging area to measure and understand. Typical examples of informal learning include learning by doing, engaging with others and keeping abreast of new developments.

The 2023 Survey of Adult Skills introduces a more detailed approach to measuring informal learning than the previous cycle, allowing a better understanding of how individuals acquire skills outside structured learning environments. In this second cycle of the Survey, informal learning is captured by three key indicators:

- **Learning new things** – how often an individual's job involves learning new things.
- **Learning by doing** – the extent to which individuals develop skills and knowledge by carrying out their regular activities.
- **Keeping up to date** – how often individuals stay informed about new products, services or developments relevant to their work or interests.

The first cycle of PIAAC already included the two latter indicators – 'learning by doing' and 'keeping up to date', which allows for trend analysis on these items. The addition in 2023 of 'learning new things' provides an additional and more direct way to assess informal learning.

Source: OECD (2024^[2]), *Survey of Adult Skills – Reader's Companion: 2023*, <https://doi.org/10.1787/3639d1e2-en>.

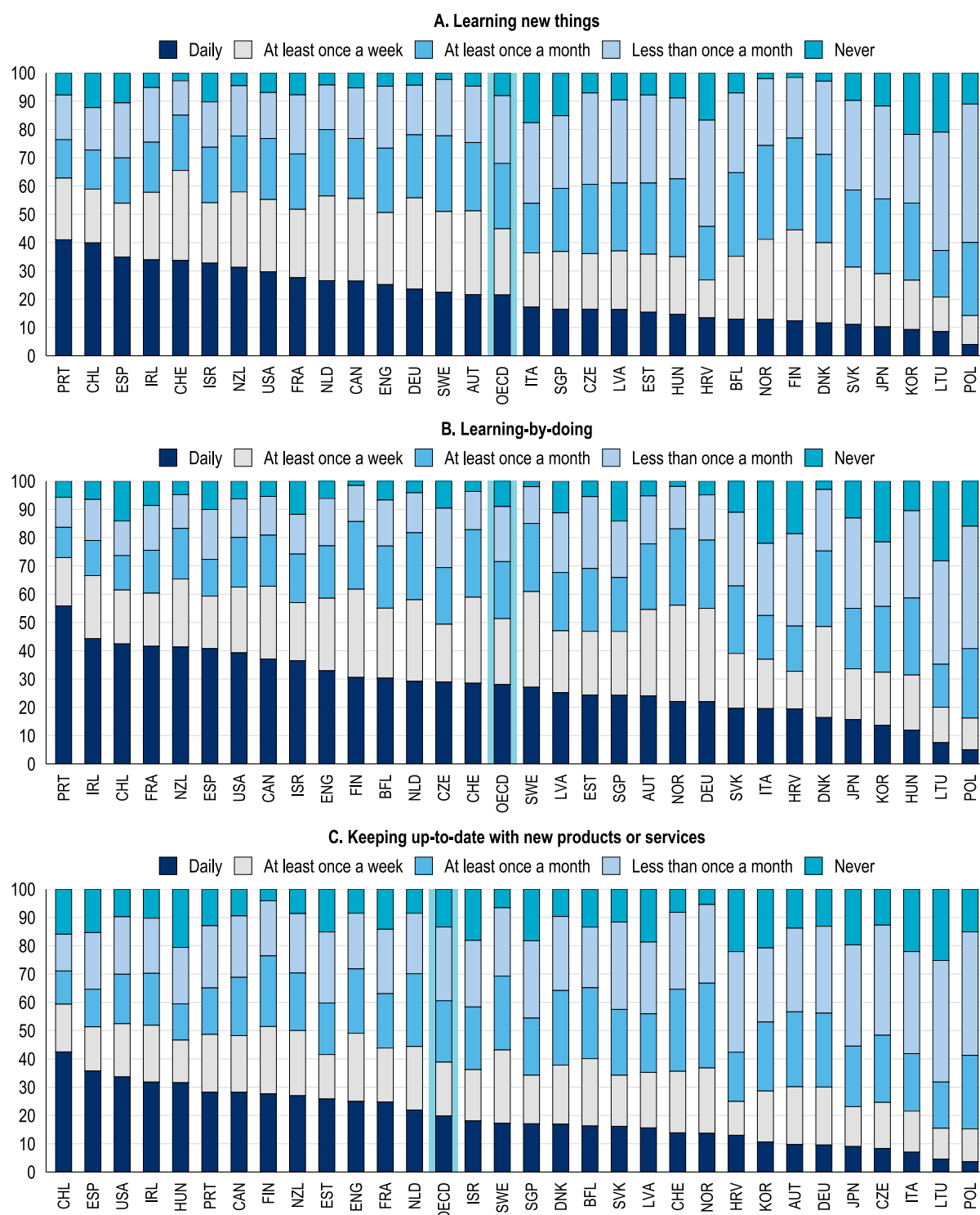
A similar pattern emerges for learning by doing, albeit with slightly higher incidence overall (Panel B). On average, 28% of employees across the OECD report that they learn by doing on a daily basis. While Chile and Portugal remain among the top countries for daily engagement, France and New Zealand move into the top five, suggesting that learning by doing may be particularly embedded in the work environment in these countries, compared to other ways of informal learning. Conversely, the countries with the highest proportions of people who never learn by doing – Lithuania (28%), Italy and Korea (both 22%) – are broadly consistent with those reporting low engagement in learning new things.

When it comes to keeping up with new products and services, 20% of employees in the OECD on average engage in this type of learning on a daily basis, while 14% say they never do so – the highest proportion of non-participants among the three informal learning indicators (Panel C). While cross-country patterns are similar to what has been observed for the other informal learning indicators, Hungary stands out, with 32% of employees keeping up with new products and services every day, despite lower rankings on the other two measures of informal learning.

The differences observed between the three indicators of informal learning suggest that they capture different but complementary dimensions of learning at work. While learning new things and learning by doing may reflect the general dynamism of the workplace and the complexity of tasks, keeping up with new products and services may be more sector specific. This could explain why some countries, such as Hungary, score higher on this measure despite lower engagement in other forms of informal learning.

Figure 1.5. Informal learning is very common among working adults

Share of employed adults engaging in informal adult learning, by frequency, %



Note: Adults aged 25-65 who were employed in the 12 months prior to the survey. OECD is an unweighted average of all participating member countries.

Source: OECD (n.d.[5]) Survey of Adult Skills (PIAAC) (2023) Database, <http://www.oecd.org/en/about/programmes/piaac/piaac-data.html>. Underlying data are reported the accompanying Appendix Tables, available at https://www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Differences between countries are likely to reflect differences in occupational structures, workplace cultures, hiring practices, and general economic conditions. In countries with high proportions of adults who never engage in informal learning – such as Lithuania, Korea and Italy – job roles may be narrower and involve lower levels of autonomy, limiting opportunities for on-the-job learning. Conversely, the high levels of informal learning in countries such as Switzerland and Portugal may reflect work environments where continuous skills development is more embedded, whether through job design, employee initiative or workplace culture. These differences may also be shaped by the degree to which lifelong learning is culturally valued and how aware workers are of their own skill development.

These findings highlight the need for a more detailed understanding of how informal learning is embedded in different labour markets. Future analysis of its relationship with factors such as job autonomy, task complexity, ICT use, and structured learning systems could help to identify instances where informal learning complements or substitutes formal and non-formal training. Such evidence could inform policies aimed at strengthening workforce adaptability in response to ongoing technological and economic transformations.

Content, intensity and modes of formal and non-formal learning

Understanding the intensity, content and modes of adult learning provides deeper insights into how individuals engage with education and training. Examining the frequency with which adults participate, the subjects they study, and the ways in which learning is delivered, helps policymakers determine whether current provision matches labour market needs and individual learning preferences.

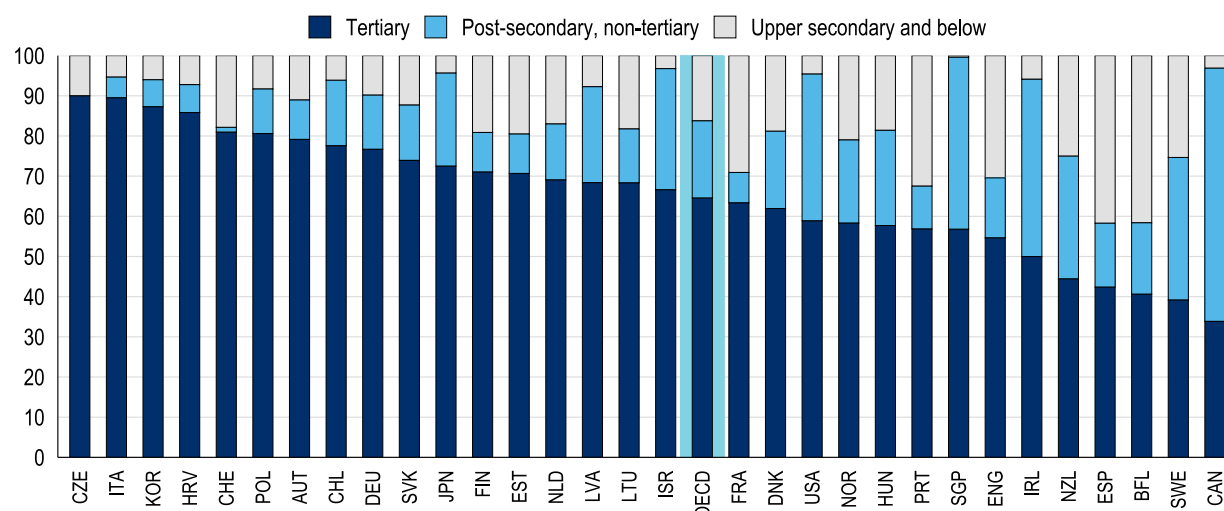
When adults participate in formal learning, they tend to take tertiary degrees...

Formal learning includes structured programmes leading to recognised qualifications such as upper secondary diplomas, vocational certificates, or tertiary degrees. Some adults take up formal education to catch up on previously missed learning, such as obtaining upper secondary diplomas later in life (“second chance education”). Others participate in formal education to gain new qualifications, such as master’s degrees, for career progression or reskilling.

Patterns of qualifications taken through formal adult learning vary considerably between countries, reflecting differences in initial and continuing education and training systems, learner structure and policy priorities (Figure 1.6). On average across countries, most formal adult learning takes place at tertiary level (65%), ranging from 90% in Czechia and Italy to under 40% in Canada. In some countries, post-secondary non-tertiary education make up large shares of formal adult learning. This includes Canada, Ireland, Singapore and the United States. Canada and the United States, for example, both have extensive college system in which adults can gain post-secondary diplomas that provide entry to a number of professions. A final group of countries has relatively high shares of second-chance education (30% of formal adult learning or more). This includes England (UK), the Flemish Region (Belgium), Portugal and Spain.

Figure 1.6. Tertiary learning dominates, but second-chance education remains substantial

Share of adults currently in formal education, by education level they are studying towards, %



Note: Adults aged 25-65 currently in formal education. OECD is an unweighted average of all participating member countries.

Source: OECD (n.d.^[5]), Survey of Adult Skills (PIAAC) (2023) Database, <http://www.oecd.org/en/about/programmes/piaac/piaac-data.html>. Underlying data are reported the accompanying Appendix Tables, available at https://www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

...while non-formal learning often focuses on health and safety or computer skills

Examining the content of non-formal learning provides insights into the types of skills adults are developing and how these relate to labour market needs. The data show that non-formal job-related learning covers a wide range of topics, although certain themes dominate. The most common training subject across countries is health and safety and first aid (18%). This is a pattern that has been observed in previous research and is in line with regulatory requirements in many sectors, where compliance-based training is often mandatory (OECD, 2021^[7]). The extent to which health and safety training dominates varies: in Finland, Ireland, Italy, Norway, Slovak Republic it makes up 25% or more of non-formal job-related training, but only 9-10% in Austria, Israel and Switzerland (see Appendix Tables, available on the [support materials page](#) of this publication).

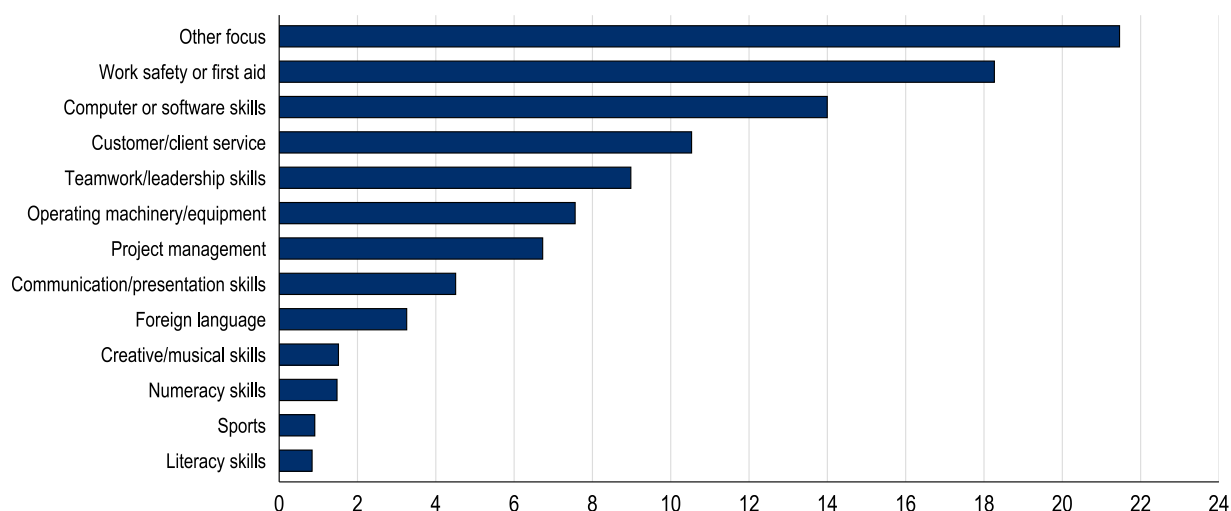
In addition, training in computer and software skills is widespread across countries (14%), reflecting the need to adapt to increasingly digitalised workplaces. The share of IT-related training is largest in Israel, Spain and Singapore (all 19%) and lowest in Italy, Japan and Poland (10% or less) (see Appendix Tables, available on the [support materials page](#) of this publication). Across countries, training in customer and client services (11%), teamwork and leadership skills (9%) is also common, highlighting the importance of transversal skills. Although only 14% of training activities focused primarily on computer or software skills, a larger proportion of training sessions nevertheless involved participants learning how to use computerised equipment or navigate digital processes more effectively (see Chapter 3, Box 3.1).

Strong information-processing skills – such as literacy and numeracy – are the basis for adults to adapt to changing job demands and to engage in further learning (OECD, 2024^[1]), yet relatively few adults participate in job-related training activities focused on these skills across countries (around 1%). Such training may take place in other non-job-related contexts in many places. However, ensuring that those who would most benefit from literacy and numeracy training have access to such courses – in particular in the context of job-related training for individuals with low foundational skills – remains a challenge.

For policymakers, these findings highlight the need to reflect on providing non-formal learning opportunities that support labour market needs. While health and safety training is necessary and often legally required, there is also a need for broader skills development, including in areas such as literacy, numeracy, digital and technical skills. Understanding which types of training are most widely available – and who is accessing them – can help shape policies that promote more labour-market relevant adult learning.

Figure 1.7. Health and safety training dominates non-formal learning

Share of non-formal job-related learning activities with the named focus, OECD average, %



Note: Adults aged 25-65, non-formal job-related learning. Respondents were asked to identify a single primary focus of the most recent adult learning activity undertaken. See Box 1.1 for a precise definition of job-related adult learning.

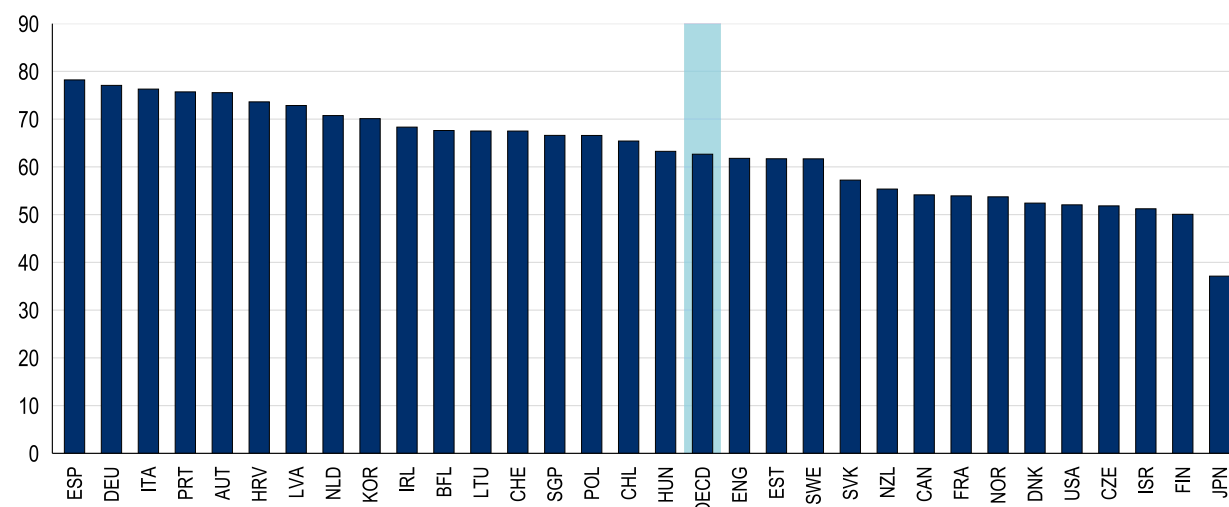
Source: OECD (n.d.^[5]), Survey of Adult Skills (PIAAC) (2023) Database, <http://www.oecd.org/en/about/programmes/piaac/piaac-data.html>. Underlying data are reported in the accompanying Appendix Tables, available at https://www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Non-formal learning that leads to a certificate can make learning more recognisable to employers, thereby increasing its value in the labour market. On average across OECD countries, 62% of non-formal learning activities lead to a certificate (Figure 1.8). Country differences highlight different approaches to skills recognition. Non-formal learning is more likely to be certified in southern European countries such as Croatia, Italy, Portugal and Spain, and in central European countries such as Austria and Germany. This reflects institutional frameworks where qualifications and formal recognition play a central role in career progression. In these contexts, certification can enhance the transferability of skills across employers and sectors, providing workers with tangible evidence of acquired skills that can be used for career advancement.

In contrast, in countries such as Czechia, Denmark, Finland, Israel, Japan and the United States, around half or less of all non-formal learning opportunities lead to certification. First, apart from Japan, these are countries with relatively high levels of participation in formal adult learning, suggesting that certification may remain primarily the domain of formal rather than non-formal adult learning. In systems where formal adult learning is more widely used, non-formal learning may serve as a complementary or supplementary tool for developing skills, rather than as a substitute for formal qualifications. Second, some of these countries may have more flexible labour markets, where skills can be signalled through work experience and employer-based assessments. In such systems, employees and employers may place more emphasis on demonstrated skills rather than on officially certified learning outcomes.

Figure 1.8. Different approaches to certification reflect differences in skill recognition

Share of non-formal learning leading to a certificate, %



Note: Adults aged 25-65, non-formal job-related adult learning in the 12 months prior to survey. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[5]), Survey of Adult Skills (PIAAC) (2023) Database, <http://www.oecd.org/en/about/programmes/piaac/piaac-data.html>. Underlying data are reported the accompanying Appendix Tables, available at https://www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Shorter learning opportunities are correlated with higher average participation rates

Most non-formal job-related learning activities are relatively short, with 42% lasting a day (8 hours) or less and a further 40% lasting between a day and a week (40 hours) on average across OECD countries (Figure 1.9). Longer courses are much less common, with 15% of activities lasting between a week and a month and only 4% lasting longer than a month. There is notable cross-country variation. In England (UK), short courses dominate, with more than half (56%) lasting a single day or less. In contrast, week-long training activities are most common in Korea and Singapore (both 52%), as well as in France and Italy (both 49%). Extended non-formal learning of more than one month is most common in Austria and Spain (both 8%) and Israel (7%).

Training duration for unemployed adults is longer, on average across OECD countries, than for adults who are employed. While amongst adults who are employed, just 15% participated in non-formal job-related learning activities that lasted for longer than a week, 38% of unemployed adults did so. There are several reasons for this. First, unemployed adults have fewer time constraints, as they are not balancing work-related responsibilities (see Chapter 3). Additionally, the training needs of employed and unemployed adults often differ. Employed adults typically require short, targeted learning activities to acquire specific skills that complement their current job tasks. In contrast, unemployed adults may need more comprehensive training to develop a broader range of skills, making them more competitive in the job market and improving their employability.

It is important to note that these figures do not capture the total annual hours spent by an individual in non-formal learning, as respondents only report the duration of a single activity they consider the most important. Many adults may participate in multiple learning opportunities throughout the year, potentially accumulating significant learning time across different activities.

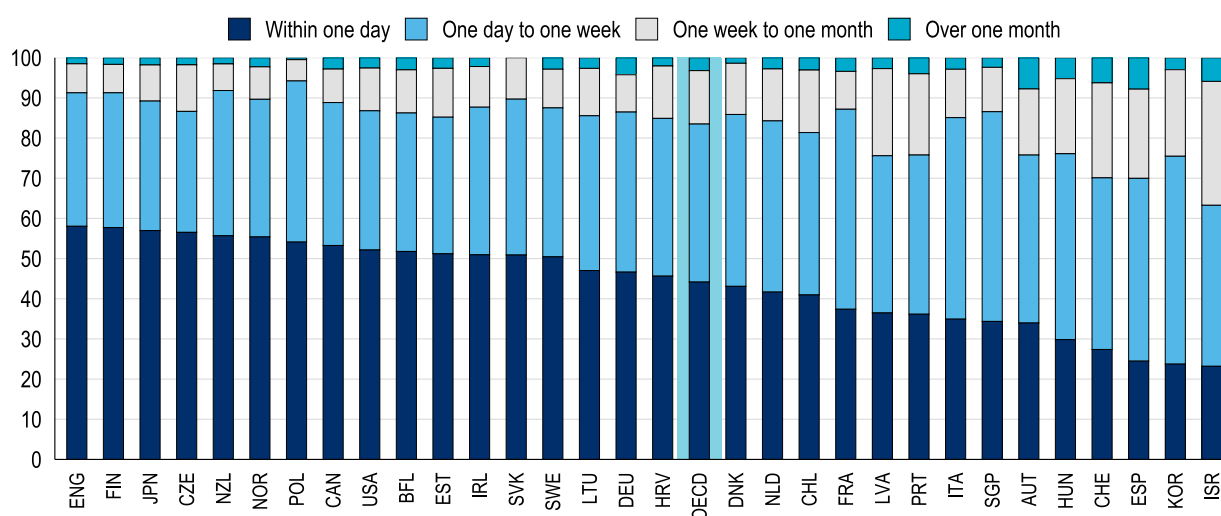
There is a clear negative correlation between the median duration of non-formal learning and the share of adults participating in it (Figure 1.10). In other words, countries where non-formal learning tends to be of

shorter duration tend to have higher participation rates, while countries with longer training commitments tend to have lower participation rates. This pattern suggests that the time commitment for taking part in a given adult learning activity – and perhaps the higher costs that may be associated with longer learning opportunities – plays a crucial role in determining engagement with adult learning opportunities.

However, similar training intensities do not always correspond to similar participation rates. For example, Croatia and Denmark have a similar median duration of training (about 1.5 days), but Denmark's participation rate in non-formal learning is more than 2.5 times that of Croatia. This highlights that other factors, such as the availability and relevance of training opportunities, employer and other financial support, play an important role in shaping participation patterns beyond the duration of training itself.

Figure 1.9. The vast majority of non-formal learning activities last less than one week

Share of non-formal learning, by duration, %

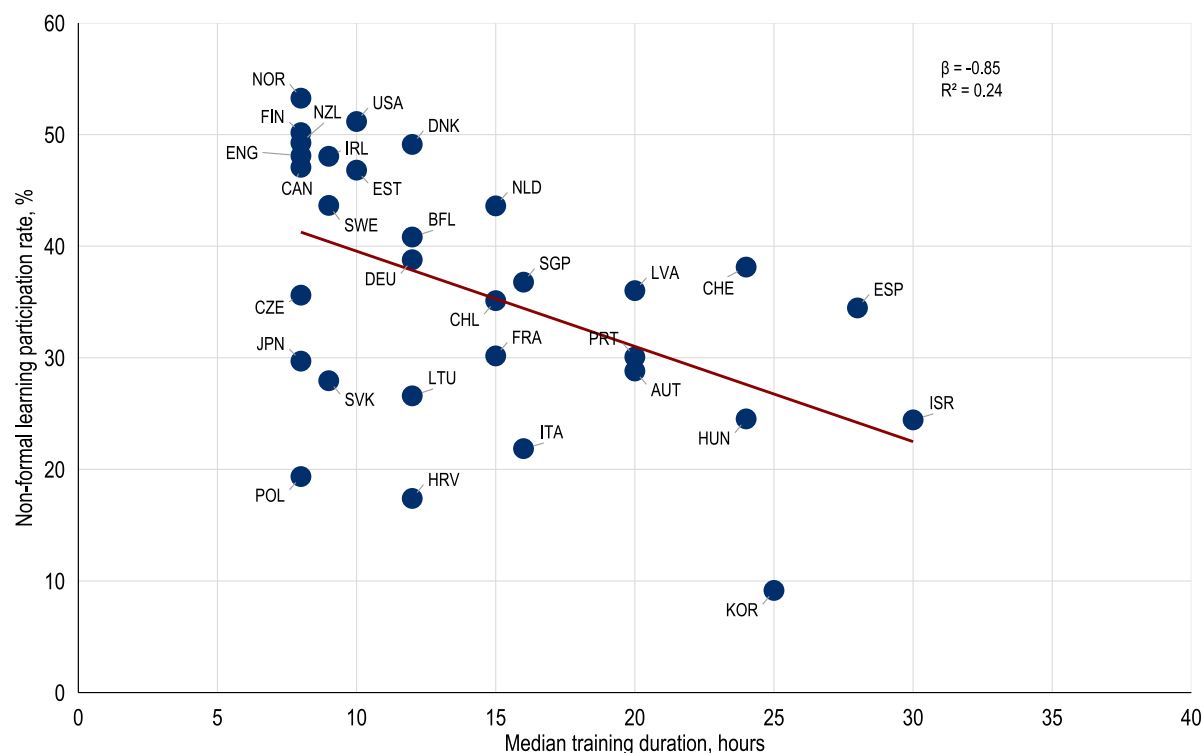


Note: Adults aged 25-65, non-formal job-related learning. OECD is an unweighted average of all participating member countries.

Source: OECD (n.d.^[5]), Survey of Adult Skills (PIAAC) (2023) Database, <http://www.oecd.org/en/about/programmes/piaac/piaac-data.html>. Underlying data are reported the accompanying Appendix Tables, available at https://www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Figure 1.10. Longer training is associated with lower participation rates

Correlation between non-formal learning participation rate and median training duration



Note: Adults aged 25-65, non-formal job-related learning. OECD is an unweighted average of all participating member countries.

Source: OECD (n.d.^[5]), Survey of Adult Skills (PIAAC) (2023) Database, <http://www.oecd.org/en/about/programmes/piaac/piaac-data.html>. Underlying data are reported the accompanying Appendix Tables, available at https://www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Countries where non-formal learning predominantly takes the form of short courses tend to have higher participation rates, suggesting that accessibility is improved when a given training requires less time commitment. However, strong reliance on very short courses raises concerns about their ability to equip adults for more fundamental changes in the labour market, in particular where the stackability of these types of courses towards qualifications is limited. If very short courses become the dominant form of learning and adults do not take part in a commensurately greater number of smaller, more modular activities, there is a risk that skill development will remain marginal rather than providing the substantial retraining needed to facilitate occupational mobility or economic transition.

Ensuring a balance between accessibility and depth in adult learning systems is therefore essential. While short, targeted courses can be effective in maintaining the adaptability of the workforce, there must also be pathways for more substantial skills acquisition. The development of modular learning and stackable qualifications help facilitate this, allowing adults to build up deeper skills over time without the need for long, continuous periods away from work (see Chapter 4). As labour markets continue to evolve, promoting a system that combines flexibility with opportunities for sustained skills development will be key to ensuring the long-term resilience of the workforce.

Non-formal learning still mostly takes place face-to-face

Flexibility in adult learning is essential for individuals to balance work, family, and other commitments. The mode of delivery – whether face-to-face, online, or blended – as well as the structure and timing of learning activities, significantly affect accessibility, engagement, and effectiveness (OECD, 2023^[4]). Training delivered in a single block, at regular intervals, or asynchronously can shape participation patterns, particularly for those with limited time. Understanding these modes and formats provides insights into how learning opportunities are structured across countries and highlights key considerations for policy design to enhance access and responsiveness.

The COVID-19 pandemic accelerated the adoption of new learning modes, making use of technological advancements (OECD, 2020^[8]). Yet, on average across OECD countries, face-to-face training remains the dominant mode, with 53% of non-formal learning taking place face-to-face with an instructor. Online learning accounts for 34% of training, while blended learning – combining face-to-face and online elements – accounts for the remaining 14%.

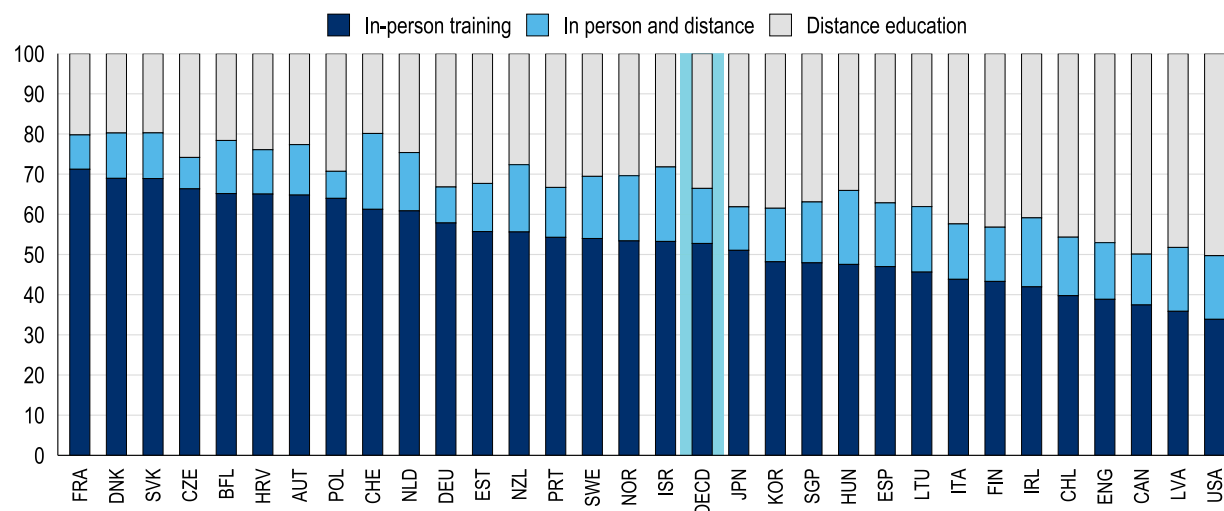
However, these averages hide substantial differences between countries. Some countries have much higher rates of online and blended learning. In Canada, Chile, England (UK), Latvia and the United States, more than 60% of non-formal learning takes place at a distance, either entirely online or through a mix of online and face-to-face sessions. In contrast, in countries such as Czechia, Denmark, France and the Slovak Republic, face-to-face training remains the dominant mode with more than two thirds of non-formal learning taking place in this setting. This may reflect a preference for practical instruction, the nature of the training programmes offered, structural factors such as limited digital learning infrastructure or regulatory constraints.

Across the OECD, most non-formal learning – three in five – takes place in blocked sessions (Figure 1.12). A further 35% of learning activities follow a recurring schedule over several weeks or months, potentially allowing for deeper skill acquisition and better retention. Meanwhile, asynchronous learning – where there are no fixed times for participation – is the least common, accounting on average for less than 5% of training activities.

Hungary, Japan and the Netherlands stand out with the highest shares of asynchronous learning, indicating a greater reliance on flexible, self-paced formats. Meanwhile, Israel and Korea have the highest proportions of recurrent training sessions over several weeks or months. This is consistent with these countries reporting some of the highest proportions of longer training courses of one week or more.

Figure 1.11. In-person training remains the norm in most countries

Share of non-formal learning by mode of delivery, %

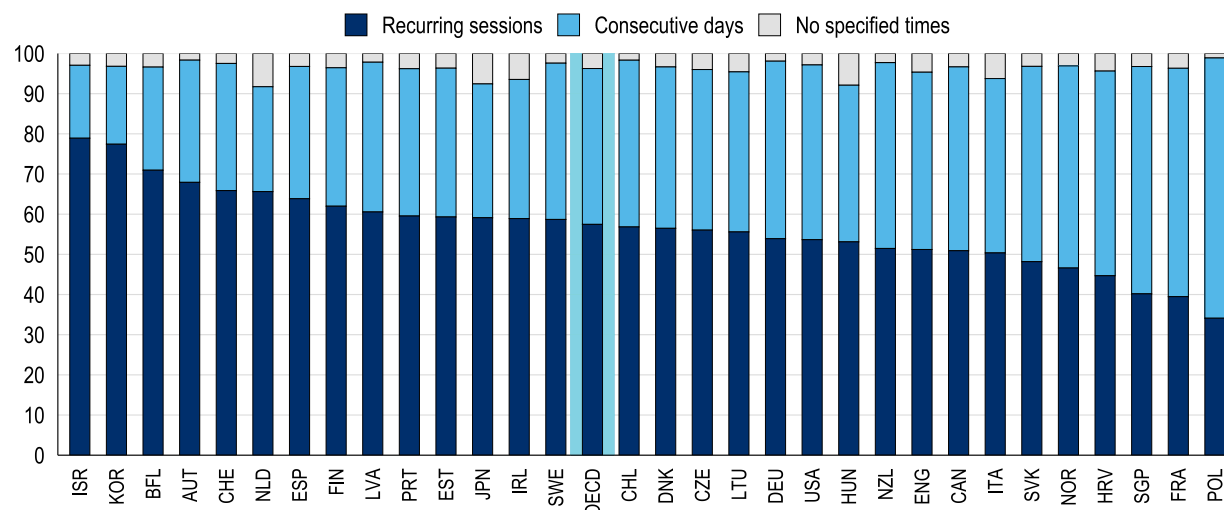


Note: Adults aged 25-65, non-formal learning in the 12 months prior to the survey. OECD is an unweighted average of all participating member countries.

Source: OECD (n.d.^[5]), Survey of Adult Skills (PIAAC) (2023) Database, <http://www.oecd.org/en/about/programmes/piaac/piaac-data.html>. Underlying data are reported the accompanying Appendix Tables, available at https://www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Figure 1.12. Most non-formal adult learning takes places in bloc

Share of non-formal learning by frequency of delivery, %



Note: Adults aged 25-65, non-formal learning in the 12 months prior to the survey that was longer than 1 day. OECD is an unweighted average of all participating member countries.

Source: OECD (n.d.^[5]), Survey of Adult Skills (PIAAC) (2023) Database, <http://www.oecd.org/en/about/programmes/piaac/piaac-data.html>. Underlying data are reported the accompanying Appendix Tables, available at https://www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

The way in which training is delivered has important policy implications, as different modes offer different levels of accessibility and flexibility. While face-to-face training remains the most common format, online

and blended options help to reach those with geographical or time constraints. The scheduling of training is also important. Blocked or consecutive days may be easier for employers to accommodate but may exclude those who cannot take time off. Regular sessions over weeks or months support sustained learning but require long-term commitment, while asynchronous formats offer maximum flexibility but are less common. Understanding these patterns can help design more inclusive and effective learning opportunities that support workforce adaptability.

Development of adult learning participation

Tracking changes in adult learning participation over time is essential to understand whether efforts to expand learning opportunities are leading to real increases in engagement. The Survey of Adult Skills (PIAAC) provides a unique opportunity to analyse changes in participation across a large number of OECD countries. However, making comparisons between cycles is not straightforward, primarily due to a difference in how respondents were being asked about their participation in non-formal learning activities (see Box 1.3 and Box 1.5). While measurement of formal and informal learning has stayed consistent across survey cycles, trends for non-formal learning should be interpreted with extreme caution and ideally be triangulated with other data sources (Box 1.5).

When interpreting these developments over time, it should also be considered that of the 27 countries that participated in both cycles of the Survey of Adult Skills, not all countries participated in the first round of the first cycle in 2012. Chile, Israel, Lithuania, New Zealand and Singapore participated in 2015 and Hungary in 2018. Comparisons between the first and second cycle are therefore made between different time periods for these countries.

Box 1.3. Interpreting trends in adult learning across cycles of the Survey of Adult Skills

Structured adult learning includes both formal education (such as school, university and vocational qualifications) and non-formal learning (such as workplace training, workshops and private courses).

The measurement of formal adult learning has remained mostly stable over the cycles of the Survey of Adult Skills.³ The approach to measuring non-formal learning has changed in an effort to improve the survey (see Box 1.5).

Previously, non-formal learning was captured through a series of detailed questions on different types of training activities. Respondents were then asked whether the final type of training activity they reported was job-related (if they had reported multiple types of training activity). In the second cycle, this was simplified into a single question, making the survey faster to complete while still covering the same concept. Respondents who had reported more than one training activity were asked to refer to a job-related training activity when responding to subsequent questions.

As a result, the trends observed reflect both real changes in participation and differences in measurement. As non-formal learning represents the larger share of structured adult learning, these changes also affect the measurement of overall participation rates. While trends should be interpreted with caution, the underlying concept of participation remains comparable. Taken together with other sources (see Box 1.5), the analysis of trends still provides valuable insights.

Further information on the design methodology for the Survey of Adult Skills is available on the PIAAC website (<https://www.oecd.org/en/about/programmes/piaac/piaac-data.html>) and in the *PIAAC Reader's Companion* (OECD, 2024^[2]).

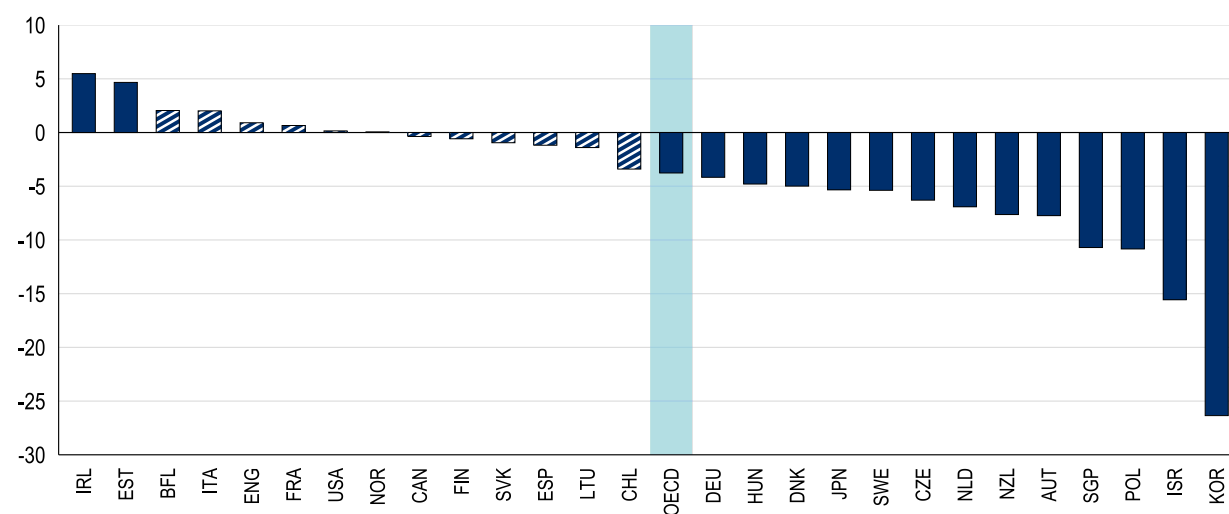
Adult learning has stagnated or declined over the past decade

Participation in formal and non-formal learning has declined in more countries than it has increased over the past decade (Figure 1.13). Amongst the few countries that saw increases in adult learning participation, Estonia and Ireland saw the only significant increases, by around 5 percentage points. Other countries recorded smaller increases, including England (UK), France, the Flemish Region (Belgium), Italy and the United States, but these were not statistically significant. Conversely, there were significant falls in participation in several countries. Korea recorded the largest decrease (26 percentage points), followed by Israel (16 percentage points), Poland and Singapore (both 11 percentage points).

These trends highlight the different trajectories of countries with historically high participation rates. Some countries such as Finland, Norway, and the United States, have maintained high levels of participation over the past decade. Conversely, Denmark and New Zealand, which had the highest adult learning participation rates in the first cycle, experienced declines of 5 and 8 percentage points. Despite this decline, they maintain high participation rates compared to the OECD average.

Figure 1.13. In most places, adult learning participation stagnated or declined over the past decade

Percentage point change in formal and non-formal learning participation, comparison between cycles



Note: Adults aged 25-65, formal and non-formal learning. Cycle 2 data refer to 2023; data for Cycle 1 refer to 2012, except for Chile, Israel, Lithuania, New Zealand, and Singapore (2015) and Hungary (2018). See Box 1.3 for a note on comparison of data between Cycle 1 and Cycle 2. OECD is an unweighted average of all participating member countries. Results that are not statistically significant at the 5% level ($p > 0.05$) are shown in striped bars.

Source: OECD (n.d.^[5]), Survey of Adult Skills (PIAAC) (2012, 2015, 2018, 2023) Database, <http://www.oecd.org/en/about/programmes/piaac/piaac-data.html>. Underlying data are reported the accompanying Appendix Tables, available at https://www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

While adult participation in formal learning has generally declined according to the 2023 Survey of Adult Skills, trends in non-formal learning have been more mixed, with some countries experiencing increases. As shown above, only in Ireland and Estonia has participation in adult learning increased over the past decade, by around 5 percentage points (pp). These increases are driven by higher participation in non-formal job-related learning. This reflects the growing role of non-formal learning in meeting immediate labour market needs and providing flexible upskilling opportunities.

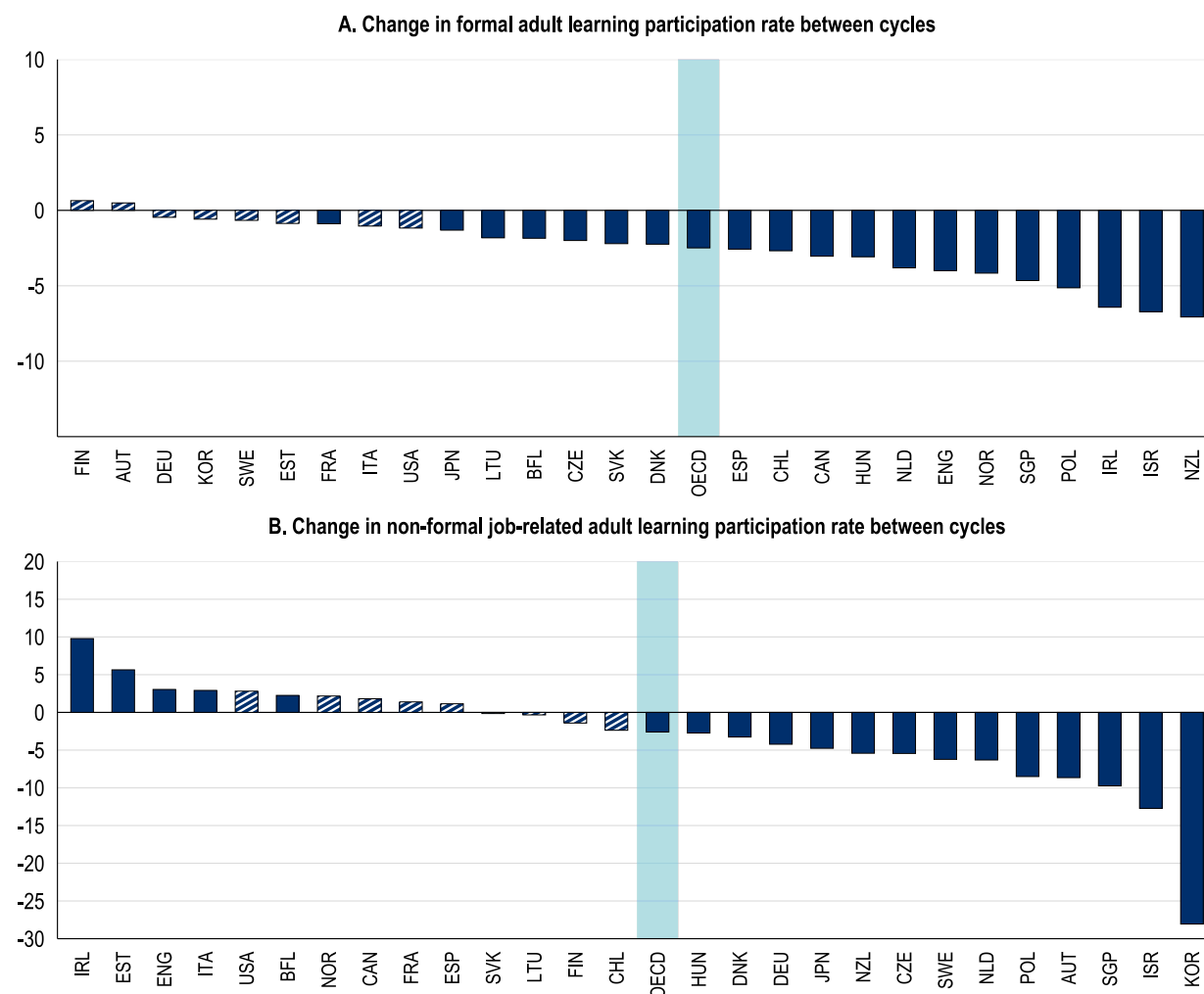
On average across OECD countries, participation in formal learning has fallen by more than 2 percentage points between survey cycles (Figure 1.14, Panel A). No country has seen a statistically significant increase in formal adult learning, but large and significant declines of 5 pp and more were observed in Ireland, Israel, New Zealand, Norway and Singapore. These declines may reflect changing policy priorities, as rapid structural changes in the labour market have led many governments to try and reduce the age at which adults graduate from tertiary education and to emphasise shorter, more targeted learning opportunities (typically provided in non-formal settings). This trend may also be influenced by wider structural societal changes, such as an ageing population, as younger people are more likely to participate in formal adult learning (see Chapter 2).

Changes in participation in non-formal job-related learning are more varied. Five countries recorded significant increases (England [UK], Estonia, the Flemish Region (Belgium), Ireland, Italy). Among these, Ireland and Estonia saw particularly notable rises, with increases of 10 and 6 pp respectively. In contrast, 14 countries experienced significant declines, with the highest decline recorded in Korea (-28 pp) (Figure 1.14, Panel B). While there has been an average decline of 3 pp across the OECD, this has been from a much higher base, so the relative decline is less pronounced than the one observed for formal learning.

Changes to the formal education system geared at helping students to finish tertiary education earlier, and a drop in the relative share of the population who are in early adulthood (and hence may be more likely to be pursuing formal education past the age of 25) may also contribute to the decline in formal learning participation. As noted in Box 1.3, care should be taken in interpreting these results, given slight changes between Cycle 1 and Cycle 2 in how questions on adult learning were administered.

Figure 1.14. Trends in formal and non-formal participation diverge

Percentage point change in formal and non-formal job-related learning participation, comparison between cycles



Note: Adults aged 25-65, formal and non-formal job-related learning. See Box 1.1 for a precise definition of job-related adult learning. Cycle 2 data refer to 2023; data for Cycle 1 refer to 2012, except for Chile, Israel, Lithuania, New Zealand, and Singapore (2015) and Hungary (2018). See Box 1.3 for a note on comparison of data between Cycle 1 and Cycle 2. OECD is an unweighted average of all participating member countries. Results that are not statistically significant at the 5% level ($p > 0.05$) are shown in striped bars.

Source: OECD (n.d.[5]), Survey of Adult Skills (PIAAC) (2012, 2015, 2018, 2023) Database, <http://www.oecd.org/en/about/programmes/piaac/piaac-data.html>. Underlying data are reported the accompanying Appendix Tables, available at https://www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

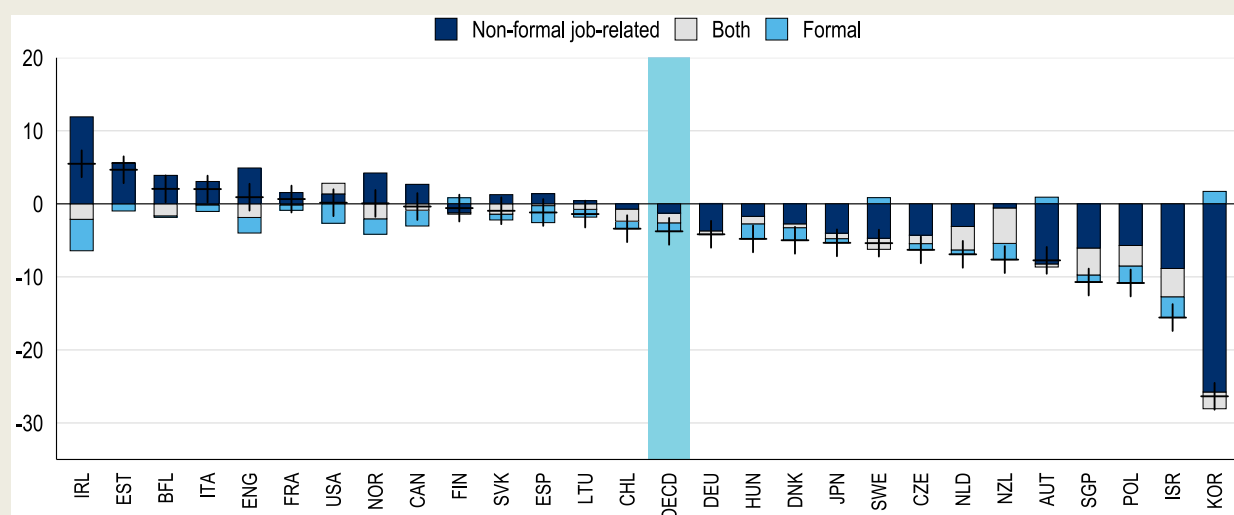
Box 1.4. Relationship between participation trends

Overall trends in participation are not simply the sum of changes in formal and non-formal learning, as some adults engage in both types. Figure 1.15 decomposes changes in adult learning participation to account for potential overlaps between formal and non-formal learning. It distinguishes between changes in participation in only formal, only non-formal job-related and both. In some countries, such as Ireland and Estonia, the increase in non-formal learning has been the primary driver of overall participation growth, while formal learning has remained relatively stable. Conversely, in countries like Israel and Korea, steep declines in non-formal learning have not been offset by changes in formal learning, contributing to an overall reduction in participation.

This decomposition highlights the importance of considering overlaps when analysing trends in adult learning. A decline in one type of learning does not necessarily mean a proportional drop in overall participation, as shifts between formal and non-formal learning can partially compensate for each other.

Figure 1.15. Participation patterns don't always move in the same direction

Decomposition of changes in adult learning participation rates, percentage points



Note: Adults aged 25-65, formal and non-formal job-related learning. The cross represents the overall change in formal and non-formal job-related adult learning participation. Cycle 2 data refer to 2023; data for Cycle 1 refer to 2012, except for Chile, Israel, Lithuania, New Zealand, and Singapore (2015) and Hungary (2018). See Box 1.3 for a note on comparison of data between Cycle 1 and Cycle 2. See Box 1.1 for a precise definition of job-related adult learning. OECD is an unweighted average of all participating member countries.

Source: OECD (n.d.[5]), Survey of Adult Skills (PIAAC) (2012, 2015, 2018, 2023) Database, <http://www.oecd.org/en/about/programmes/piaac/piaac-data.html>. Underlying data are reported the accompanying Appendix Tables, available at https://www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

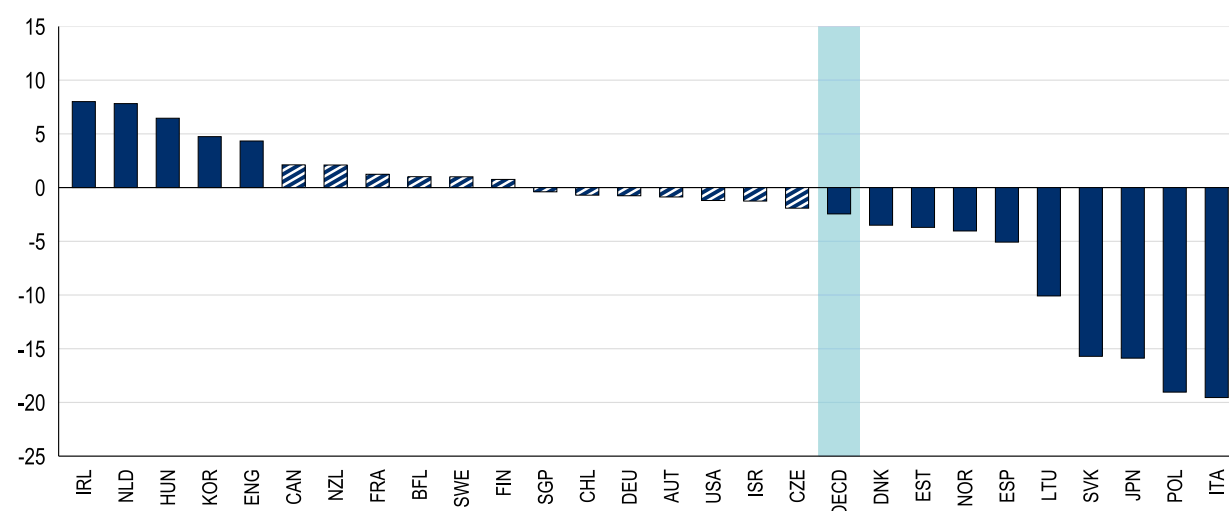
With declines in both formal and non-formal learning observed in many countries, trends in informal learning can give further insights to the changing patterns of adult learning. If informal learning remained stable or increased over the past decade, it could indicate that adults are compensating for reduced participation in formal and non-formal learning by relying more on learning-by-doing, peer learning or self-directed skills development. By contrast, a decline in informal learning could signal a wider decline in opportunities for skills development – whether due to changing workplace dynamics, reduced employer-sponsored training or fewer opportunities for experiential learning.

On average participation in informal learning has decreased by 2 percentage points in the past decade (Figure 1.16). While five countries – England (UK), Ireland, Korea, the Netherlands and Hungary – have seen significant increases in learning-by-doing, many others, most notably Italy and Poland, have seen significant declines. Where opportunities for informal learning have expanded this may be due to changes in working practices, increased recognition of experiential learning and government support for informal learning in the workplace. Declines, on the other hand, may indicate shifts in job tasks or broader economic trends, such as business cycle fluctuations, that are reducing opportunities for learning at work.

From a policy perspective, these findings highlight the importance of ensuring that learning-by-doing remains an integral part of skills development. While investments in formal and non-formal learning are essential, they cannot fully replace the value of regular experiential learning, which helps adults apply and reinforce skills in real-world settings. Policies that support learning in the workplace – such as promoting mentoring schemes, encouraging job rotation and designing working environments that are conducive to continuous learning – can help counteract the decline in informal learning seen in many countries. In addition, in countries where informal learning is declining, policymakers may need to consider whether broader structural changes, such as the decline of certain industries or increased job insecurity, are limiting opportunities for adults to learn through experience.

Figure 1.16. Informal workplace learning has declined in many countries

Percentage point change in the share of adults who learn by doing



Note: Adults aged 25-65 who reported learning by doing occurring at least once a month at current or most recent job. Cycle 2 data refer to 2023; data for Cycle 1 refer to 2012, except for Chile, Israel, Lithuania, New Zealand, and Singapore (2015) and Hungary (2018). See Box 1.3 for a note on comparison of data between Cycle 1 and Cycle 2. OECD is an unweighted average of all participating member countries. Results that are not statistically significant at the 5% level ($p > 0.05$) are shown in striped bars.

Source: OECD (n.d.[5]), Survey of Adult Skills (PIAAC) (2012, 2015, 2018, 2023) Database, <http://www.oecd.org/en/about/programmes/piaac/piaac-data.html>. Underlying data are reported the accompanying Appendix Tables, available at https://www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Drops in adult learning participation and in average skill proficiency go hand-in-hand

The relationship between job-related adult learning and skills development is complex, particularly where key information-processing skills such as literacy and numeracy are concerned. While participation in adult learning is generally associated with the maintenance and upgrading of skills, the extent of this impact depends on a number of factors, including the type, quality and intensity of learning, as well as broader individual and labour market conditions.

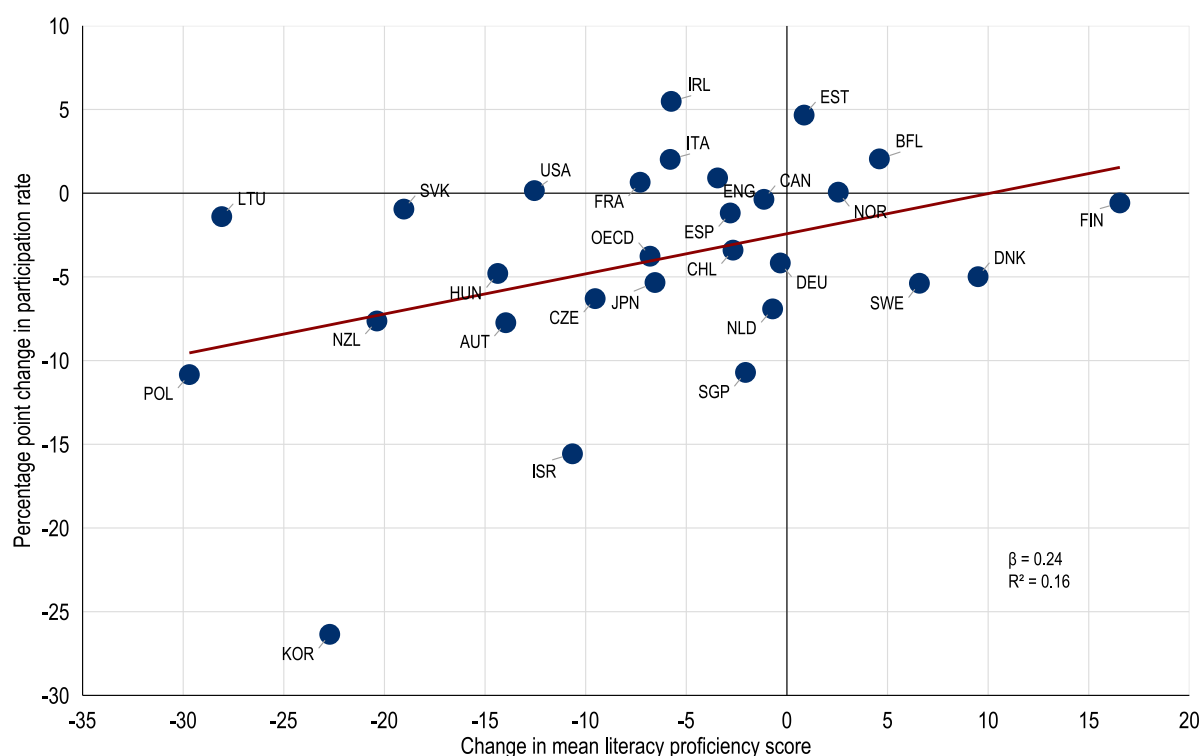
Literacy skills have stagnated or declined in many countries between survey cycles, while numeracy trends have been more mixed. These trends in skills are correlated with changes in adult participation. In particular, countries where literacy levels have fallen more sharply often show a corresponding fall in participation in adult learning (Figure 1.17). As ever, it is important to recognise that correlation does not imply causation.

There are several possible explanations for this relationship. One possibility is that declining participation in job-related adult learning limits the opportunities for adults to maintain and update their foundational skills, thereby contributing to skills deterioration over time. Another explanation could be that broader structural changes – such as demographic change – are simultaneously driving both lower participation in learning and weaker skills outcomes. As this relationship is complex, further research is required to explore and understand the dynamics influencing skill proficiency and adult learning at the aggregate level. This should include verification with other data sources, such as AES data.

These findings underline the need for policies that strengthen lifelong learning systems and ensure that adults – especially those with lower levels of information-processing skills – have access to meaningful and effective learning opportunities. As economies continue to evolve, maintaining and improving the skills of adults will be critical to the adaptability of the workforce, productivity and economic resilience.

Figure 1.17. Decreases in adult learning participation and skills proficiency go hand-in-hand

Correlation between change in formal and non-formal participation and change in average literacy score



Note: Adults aged 25-65, formal and non-formal job-related learning. Cycle 2 data refer to 2023; data for Cycle 1 refer to 2012, except for Chile, Israel, Lithuania, New Zealand, and Singapore (2015) and Hungary (2018). See Box 1.3 for a note on comparison of data between Cycle 1 and Cycle 2. OECD is an unweighted average of all participating member countries. See note for Poland in the *Reader's Companion* (OECD, 2024^[2]). Source: OECD (n.d.^[5]), Survey of Adult Skills (PIAAC) (2012, 2015, 2018, 2023) Database, <http://www.oecd.org/en/about/programmes/piaac/piaac-data.html>. Underlying data are reported the accompanying Appendix Tables, available at https://www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Box 1.5. Comparing trend results for PIAAC, AES and LFS

The measurement of adult learning varies across international surveys, with differences in concepts, reference periods and survey designs affecting comparability. Three main sources for measuring adult learning across countries are the Survey of Adult Skills (PIAAC), the Adult Education Survey (AES) and the Labour Force Survey (LFS). While all three aim to measure participation in lifelong learning, methodological differences mean that reported participation rates and trends can vary considerably for individual countries.

The Survey of Adult Skills (PIAAC) measures formal and non-formal learning in the previous 12 months through its background questionnaire. In Cycle 1, non-formal learning was covered by several detailed questions, similar to the AES. In Cycle 2, this has been simplified to a single question, somewhat in line with the LFS, but potentially leading to lower reported participation rates. Typically, data is available every tenth year.

Adult Education Survey (AES) is a specialised adult learning survey, which provides the most detailed measurement of formal and non-formal learning in Europe, covering different types of training activities. It is conducted every six years, and, like PIAAC, it uses a 12-month reference period, making it the primary source of long-term trends in adult learning in the EU. Typically, data is available every sixth year. AES data show an increase in EU-27 participation over the last decade from 40% to 47% (not limited to job-related learning). As in PIAAC, the country that has seen the largest improvement is Ireland, but there have been breaks in time series.

Labour Force Survey (LFS) includes questions on participation in education and training, with the 12-month reference period introduced in 2022 to complement the AES. This data will now be available every second year. However, recent participation in the last 4 weeks remain the main LFS measure, which tends to underestimate engagement in learning compared to a 12-month measure. LFS participation trends have been relatively flat for the EU-27 over the past decade (10-11%), with a dip in the COVID-year 2020 (9%) and a notable uptick in the most recent years, 12% in 2022 and 13% in 2023. However, there has been a change in methodology in 2021, making comparisons difficult. Some countries have seen comparatively large increases in participation, most notably Estonia and Sweden.

Figure 1.18 compares the trends of these different surveys for those European countries that participate in all three surveys. It should be noted that comparisons are not straightforward due to different lengths of the time series, different numbers of cycles and breaks in the time series. Data points between data collection cycles are simple extrapolations for presentation purposes only.

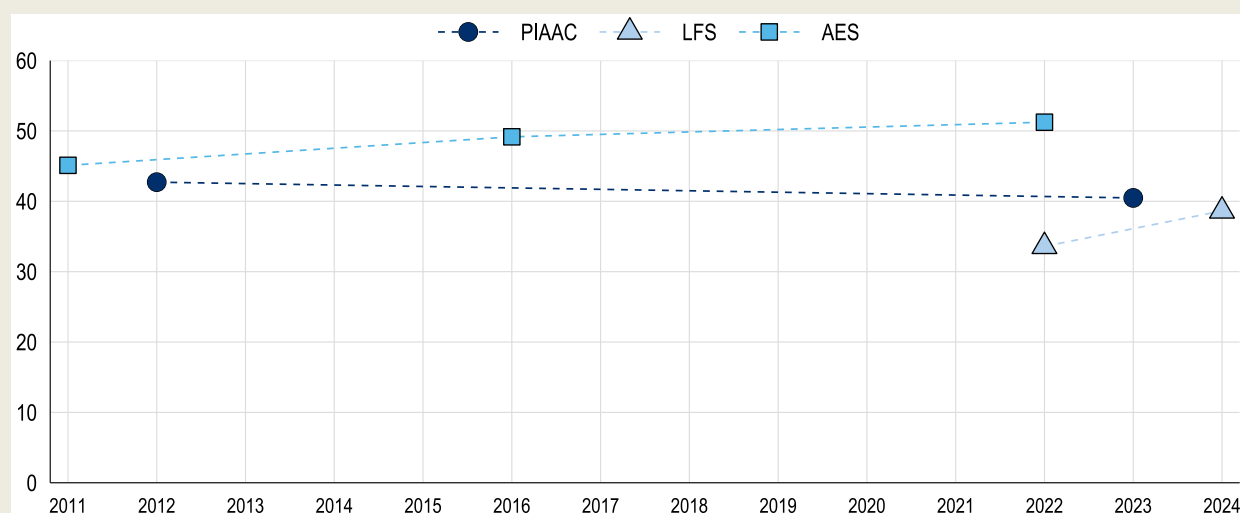
Positioning of PIAAC and implications

Despite efforts to align definitions, methodological differences lead to systematic differences in reported participation rates and trends over time. As a result, LFS based 12-month participation rates are generally lower than AES based rates. Eurostat considers the AES to be the more accurate measure of participation levels, while the LFS is useful for tracking trends more frequently.

While PIAAC was aligned with the wording used in AES in Cycle 1, PIAAC Cycle 2 introduces a measurement approach that is closer to the LFS, raising concerns about a possible underestimation of non-formal learning in Cycle 2. This means that some of the decline in non-formal learning participation observed in PIAAC may be due to these differences in question wording. While PIAAC provides cross-country comparisons beyond Europe, its results should be interpreted alongside AES and LFS data to provide the most complete picture of trends in adult learning.

Figure 1.18. Adult learning trends are not fully consistent

Share of adults participating in formal and non-formal learning, AES, LFS and PIAAC, %



Note: Adults who participated in learning activities in the 12 months prior to the survey. Unweighted average for Austria, Belgium/the Flemish Region of Belgium, Czechia, Denmark, Germany, Estonia, Finland, France, Hungary, Ireland, Italy, Lithuania, the Netherlands, Norway, Poland, Slovak Republic, Spain, Sweden.

Source: AES (2011, 2016, 2022); LFS (2022, 2024); OECD (n.d.^[5]), Survey of Adult Skills (PIAAC) (2012, 2015, 2018, 2023) Database, <http://www.oecd.org/en/about/programmes/piaac/piaac-data.html>; data between survey cycles are interpolated. Underlying data are reported the accompanying Appendix Tables, available at https://www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

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Notes

¹ It should be noted that this group may include a significant proportion of young adults who are still completing their initial education in certain countries. On average, the average age of first-time tertiary graduates across OECD countries is 20.26. However, there are notable differences between countries, ranging from 22 in Japan to 29 in Latvia. However, this report does not statistically distinguish between initial tertiary education and adult learning for individuals aged 25 and over. (OECD, 2023^[9])

² This is the average of OECD member countries that participated in the 2023 Survey of Adult Skills.

³ A minor change occurred in the measurement of formal adult learning across cycles. Cycle 1 included a direct question if adults ‘have studied for a formal qualification in the last 12 months’, a question that was not included in Cycle 2. However, this question was mostly redundant and was covered already elsewhere through current participation in formal education and time passed since prior participation in formal education.

2 Who is missing out?

Participation in adult learning remains highly unequal across socio-demographic and economic groups, with individuals who have higher skill proficiency, educational attainment and income being consistently more likely to engage in learning activities. These disparities reflect not only individual choices but also structural barriers that limit access to opportunities for those from disadvantaged backgrounds. Adults with lower educational attainment, lower earnings and lower skills face significant obstacles to participation, reinforcing existing inequalities. Comparisons with data from the previous cycle of the survey suggest some convergence in participation rates for disadvantaged groups, though no single country has universally improved access. Understanding the factors that drive participation gaps, as well as the policies that succeed in reducing them, is essential for designing interventions that promote adult learning and labour market resilience.

Learning systems must promote participation among all adults

- **Unequal participation rates persist across socio-demographic and income groups.** Adults who are older, less-educated, and who work in lower-paying jobs with lower skill requirements are less likely to participate in adult learning than their counterparts. The largest participation gaps occur along dimensions of skill proficiency, educational attainment and income. Adults who perform better on these metrics are consistently more likely to participate in adult learning.
- **Decreases in the participation rate for adults have been concentrated among higher-educated and higher-earning adults.** Though disparities persist, in many cases the overall size of the participation gap within a given country has declined, largely due to decreases in participation being disproportionately concentrated among adults who are more highly educated or who are employed in higher-skilled, better-paying jobs.
- **Gender gaps in adult learning are minimal.** Though during Cycle 1 men were more likely than women to participate in training, participation rates fell disproportionately more for men, and the latest data show that women are now as likely to participate in adult learning, on average.
- **The size of participation gaps varies considerably between countries.** While no single country stands out as having universally improved participation rates for all disadvantaged groups since Cycle 1, several countries nevertheless achieve high and equitable rates of adult learning overall.
- **Policymakers should be attentive to participation gaps.** These gaps can highlight structural barriers and uneven access to learning opportunities. Success in removing barriers and promoting participation has the potential to help disadvantaged adults develop skills and improve their labour market outcomes.
- **Gaps should be considered within the context of overall participation rates and their country's adult learning policy environment.** National efforts to expand access to adult learning should identify and build on the factors that have enabled these countries to achieve more uniform participation rates for adults with diverse backgrounds and abilities.

Introduction

Participation in adult learning is shaped by factors that influence both the supply of adult learning opportunities that are available as well as individuals' own demand for learning. Participation is associated with a range of socio-demographic, economic and occupational factors, and there are significant disparities between different groups. These disparities are not only a matter of individual choice, but also reflect broader issues that can reinforce existing social and economic inequalities.

Adults who participate in learning opportunities tend to have higher levels of education – and have higher-educated parents – and they tend to enjoy more stable employment and higher earnings. They are more often in the earlier stages of their careers and enjoy employer support for learning activities. Conversely, those with lower socio-economic status, including lower earners and people with limited educational attainment and skills, often face significant barriers to participation (see also Chapter 3). When certain groups are consistently unable to benefit from learning opportunities, this limits their potential to improve their socio-economic standing and can perpetuate cycles of disadvantage. It also makes them more vulnerable to labour market changes that require regular upskilling and/or reskilling to transition to new sectors or occupations.

This chapter examines existing disparities in adult learning participation, identifying the areas where gaps are most pronounced, and the groups disproportionately affected. It acknowledges that disparities frequently overlap across various dimensions; for example, earnings are closely linked to both age and educational attainment. After outlining the overall participation gaps, the chapter delves deeper into these inequalities by analysing them while controlling for these interrelated factors. This approach enables a more nuanced understanding of the root causes of participation disparities. Such insights are essential for policymakers, enabling them to develop more effective, targeted strategies that enhance access to, and the benefits of, adult learning opportunities.

Furthermore, this section analyses how these gaps in participation have evolved over time.¹ Widening gaps may indicate the prevalence of barriers to learning; conversely, if gaps are narrowing, this could suggest that certain policy interventions are improving access. Changes in participation gaps should be analysed within the context of overall participation rates within a country and existing adult learning policy. Addressing inequalities in adult learning participation is essential to ensure that adult learning systems support all individuals, rather than reinforcing existing inequalities. When interpreting results, changes in the measurement of non-formal learning between survey cycles need to be considered (see Chapter 1, Boxes 1.3 and 1.5).

Socio-demographic inequalities

Adult learning helps individuals acquire skills and knowledge that can help them to work more productively, to advance within their careers, or to find employment if they are out of work. Where it is provided by employers, it can indicate investment in workers and their abilities. Because adult learning brings these benefits, unequal participation rates among different socio-demographic groups can indicate unequal access to learning opportunities. It can also indicate differences in motivation to participate in adult learning, which itself can be shaped by systemic issues, such as lack of relevant opportunities, repeated exclusion from learning systems and training that feels irrelevant to one's job. Identifying socio-demographic gaps can help design adult learning policies that support those individuals who are least likely – or able – to take advantage of adult learning opportunities by addressing these systemic issues.

This section presents gaps in adult learning participation rates for a number of socio-demographic characteristics: by age, gender, immigrant status, parental education, adults' own educational attainment and adults' skill level. Alongside gaps in overall participation rates, this section presents the percentage point changes in these gaps between Cycle 1 and Cycle 2 of the Survey of Adult Skills. Where multiple categories are involved – for example, between adults aged 25-34, 35-54, and 55-65 – the changes between the top and bottom category are compared.

Younger adults participate more in adult learning than older ones

Adult learning can be useful for adults to enter into new jobs or sectors, or as a way to invest further in one's career path. One might expect that younger and mid-career workers are most likely to take up adult learning, as investments made early in one's career can pay dividends over a longer period. Conversely, being older often means being more established within a given job and facing competing priorities – for example, by starting a family or getting closer to retirement – which make individuals less likely to participate in adult learning.²

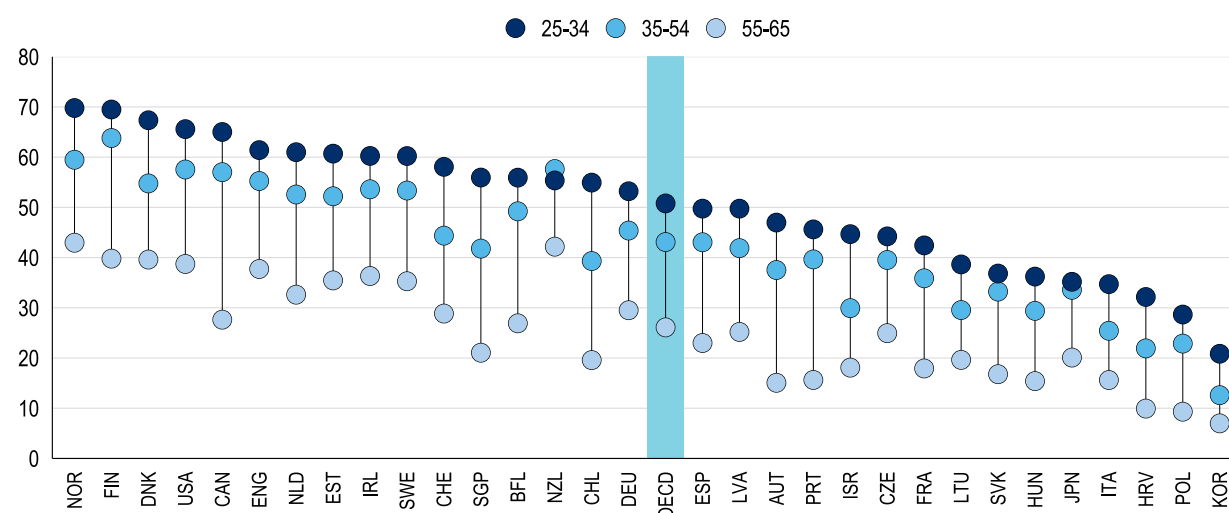
Indeed, the oldest adults (ages 55 to 65) are least likely to participate in adult learning, with 26% of adults report participation within the past 12 months on average across OECD countries (Figure 2.1). By contrast, at 51%, rates are highest among early-career adults aged 25 to 34 and in all countries but New Zealand these adults were, in fact, the most likely of all age groups to participate. On average, 43% of adults aged 35-54 report adult learning within the past 12 months.

The largest gaps in participation rates between young and older adults are in Canada, Chile and Singapore, at 35 percentage points or more. The smallest gaps are in Japan, Korea and New Zealand, at less than 15 percentage points. In the case of New Zealand, the small gap is mostly owed to the high participation rate among its oldest adults, whereas for Korea it can be attributed to lower overall participation rates, which translate into a smaller absolute participation gap.

Given that absolute gaps in participation rate between age groups can be sensitive to the overall participation rate, it can be useful to examine relative gaps (not displayed in graph). The smallest relative gaps are in England (United Kingdom), Ireland, New Zealand and Norway, where the oldest adults are 40% less likely to participate in adult learning than the age group with the highest participation rate (30% for New Zealand). The largest relative gaps in participation are in Austria, Croatia, Korea, Poland and Portugal, where adults aged 55 to 65 are only 31-34% as likely to participate in adult learning as adults aged 25-34.

Figure 2.1. Early-career adults are most likely to participate in training

Participation rate in adult learning by age, percentage



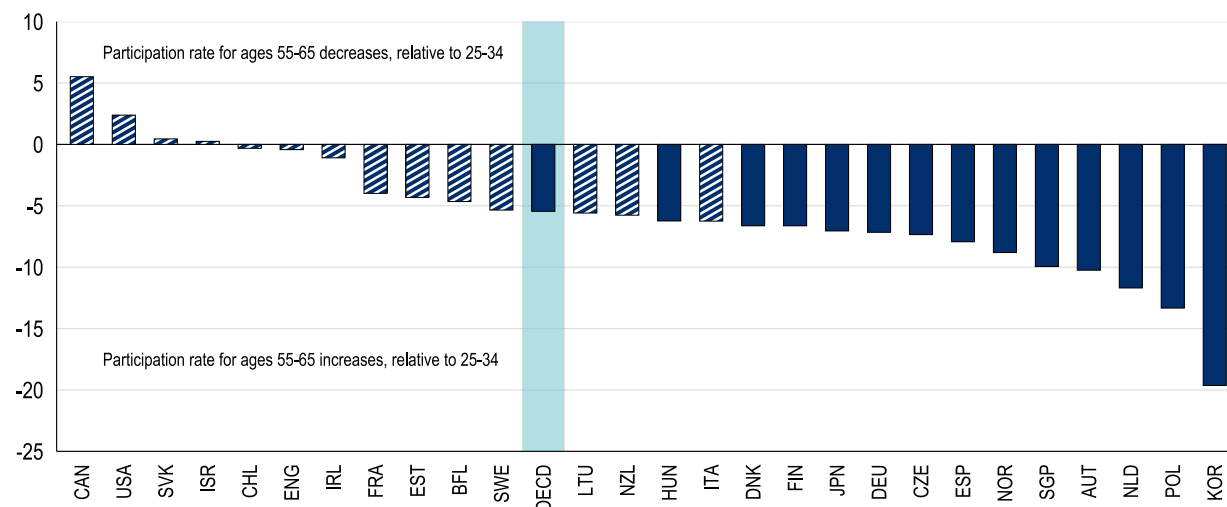
Note: Adults aged 25-65; formal and non-formal job-related learning in the 12 months prior to the survey. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]) Survey of Adult Skills (PIAAC) (2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported in the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Though in most countries younger adults aged 25 to 34 are most likely to participate in adult learning, the gap between their participation and the participation for all other adults has narrowed over the past decade (Figure 2.2). In 13 countries and economies, there was a statistically significant decline in the gap between older and younger adults. The average decline was 6 percentage points, with the youngest adults going from 30 to 24 percentage points more likely than the oldest adults to participate in adult learning. In Korea, where the relative decline was largest, the gap between adults aged 25-34 and those aged 55-65 fell 19 percentage points, from 33 to just 14 percentage points.

Figure 2.2. The participation gap between older and younger adults is closing

Percentage point change in the participation gap between adults aged 25-34 and adults aged 55-65



Note: Adults aged 25-65; formal and non-formal job-related learning in the 12 months prior to the survey. Figure plots the change, in percentage points, between Cycle 1 and Cycle 2 in the participation gap between adults aged 25-34 and all other adults. The participation gap is defined as the participation rate for adults aged 25-34 minus the participation rate for adults aged 55-65. Cycle 2 data refer to 2023; data for Cycle 1 refer to 2012, except for Chile, Israel, Lithuania, New Zealand, and Singapore (2015) and Hungary (2018). See Box 1.3 for a note on comparison of data between Cycle 1 and Cycle 2. Results that are not statistically significant at the 5% level ($p > 0.05$) are shown in striped bars. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2012, 2015, 2018, 2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

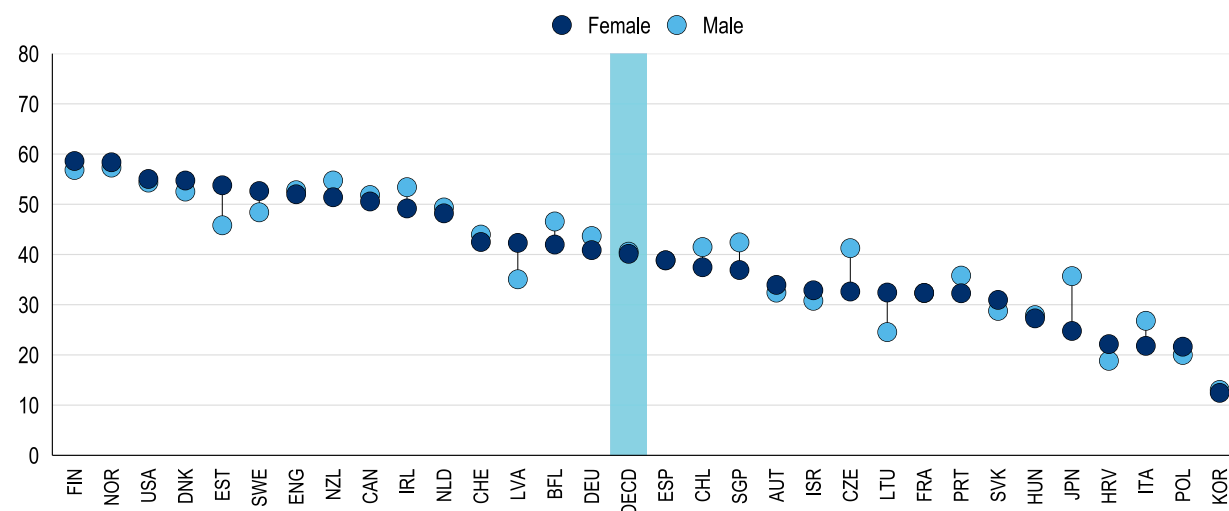
The gender participation gap has disappeared in most countries

Gender disparities in adult learning participation may reflect inequalities in the division of labour within the household that leave women with less time participate in training. They may alternatively reflect differences in employment status that affect access to employer support for adult learning opportunities. Lastly, differences may emerge due to variability in access to training across different sectors, or different preferences for learning activities overall. Policy makers should consider designing adult learning policies that eliminate barriers to participation that perpetuate gendered inequalities in adult learning and in the opportunities that adult learning can provide access to.

Participation gaps between men and women are small. The average gender gap in participation rates across OECD countries and economies is just 3 percentage points; in 15 participating countries and economies women are more likely to participate, and in 16 countries and economies men do. Because in some cases men have higher participation and in some cases women do, this means that, on balance, average participation rates for women and men are equal (see shaded bar). In just two countries does the gap exceed 8 percentage points: Czechia and Japan. In both of these cases, men are more likely to participate.

Figure 2.3. On average, women and men take part in adult learning to the same extent

Participation rate in adult learning by gender, percentage



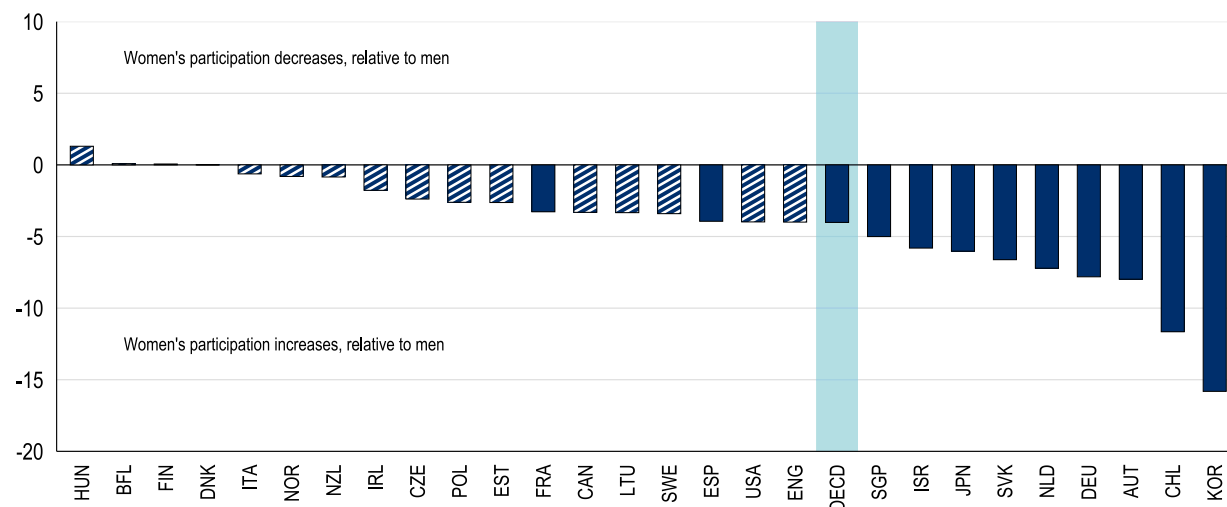
Note: Adults aged 25-65; formal and non-formal job-related learning in the 12 months prior to the survey. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported in the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Participation rates of men and women have converged since Cycle 1 was conducted (Figure 2.4). In 11 countries and economies there was a statistically significant decline in the gender gap. The overall decreases in adult learning participation observed in many countries (see Chapter 1) seem to have been driven by declining participation of men, in many cases, and it is this decrease that accounts in large part for the comparative equality now. In every case where there was a statistically significant increase in women's participation relative to men's, this occurred in a country where men had initially had higher participation rates, meaning that this change represents a move toward greater parity in adult learning participation.

Figure 2.4. Changes in participation gaps have favoured women's participation

Percentage point change in the participation gap between women and men



Note: Adults aged 25-65; formal and non-formal job-related learning in the 12 months prior to the survey. Figure plots the change, in percentage points, between Cycle 1 and Cycle 2 in the participation gap between men and women. The participation gap is equal to the participation rate for men minus the participation rate for women. Cycle 2 data refer to 2023; data for Cycle 1 refer to 2012, except for Chile, Israel, Lithuania, New Zealand, and Singapore (2015) and Hungary (2018). See Box 1.3 for a note on comparison of data between Cycle 1 and Cycle 2. Results that are not statistically significant at the 5% level ($p > 0.05$) are shown in striped bars. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2012, 2015, 2018, 2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Adults with migrant background continue to participate at lower rates

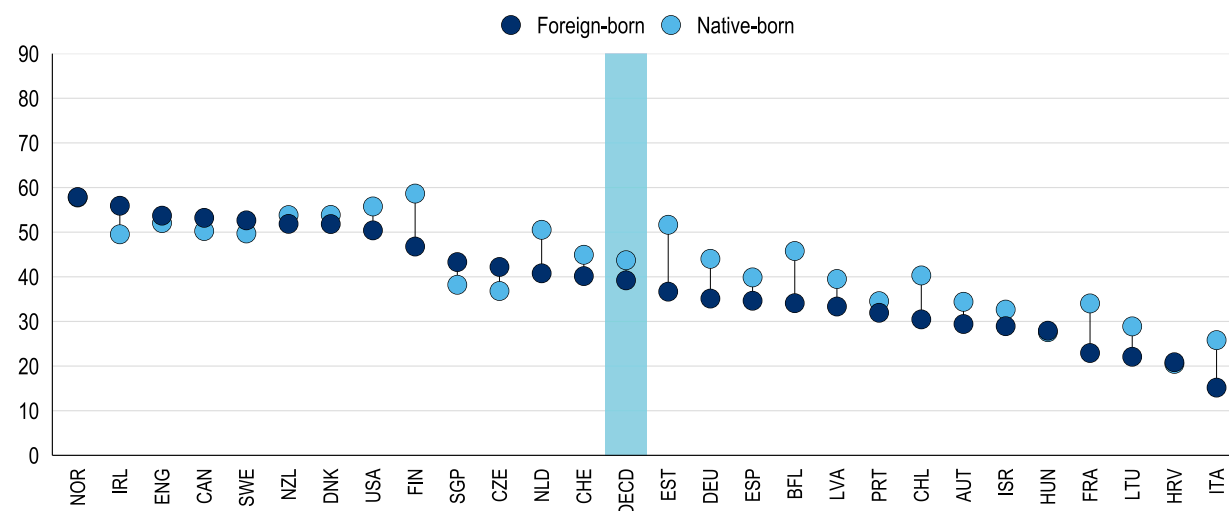
Adult learning can be an especially helpful way for migrants to improve their employability, gain a certification that attests to their knowledge and skills in their host country, and integrate into the labour market of their adoptive homes. Native- and foreign-born adults often differ in age, family structure, employment sector, or educational qualifications. This means that while foreign-born adults may have greater need for adult learning (for example, to compensate for weaker networks or unrecognised qualifications), they may also face greater barriers, such as childcare responsibilities, lower educational attainment, or lower rates of employer support. The key concern for policy makers is ensuring that adult learning systems are open and accessible to those who could stand to benefit the most from participation, particularly foreign-born adults who did not attain a formal qualification in their country of residence.

Native-born adults are more likely to participate in adult learning than foreign-born adults, at 44% compared to 39% on average. In nine countries, however, the foreign-born participation rate is higher than that of the native-born one. Yet, these gaps are typically smaller and are not statistically significant compared to gaps where native-born are more likely than foreign-born adults to participate (Figure 2.5).

The gaps between the native- and foreign-born adult populations within countries are smaller than the gaps in average participation rates between countries. The largest absolute gaps in participation rates between these groups are observed in Estonia, Finland, the Flemish Region (Belgium), France, and Italy, where gaps are all 10 percentage points or more, favouring the native-born participation. The largest relative participation gaps are in the Flemish Region (Belgium), Chile, Estonia, France, Italy, and Lithuania, where native-born adults are at least 30% more likely to participate in adult learning than foreign-born adults (over 40% for Estonia and France, and 70% more for Italy; not shown in graph).

Figure 2.5. On average, native-born adults are slightly more likely to participate in learning

Participation rate in adult learning by immigrant status, percentage



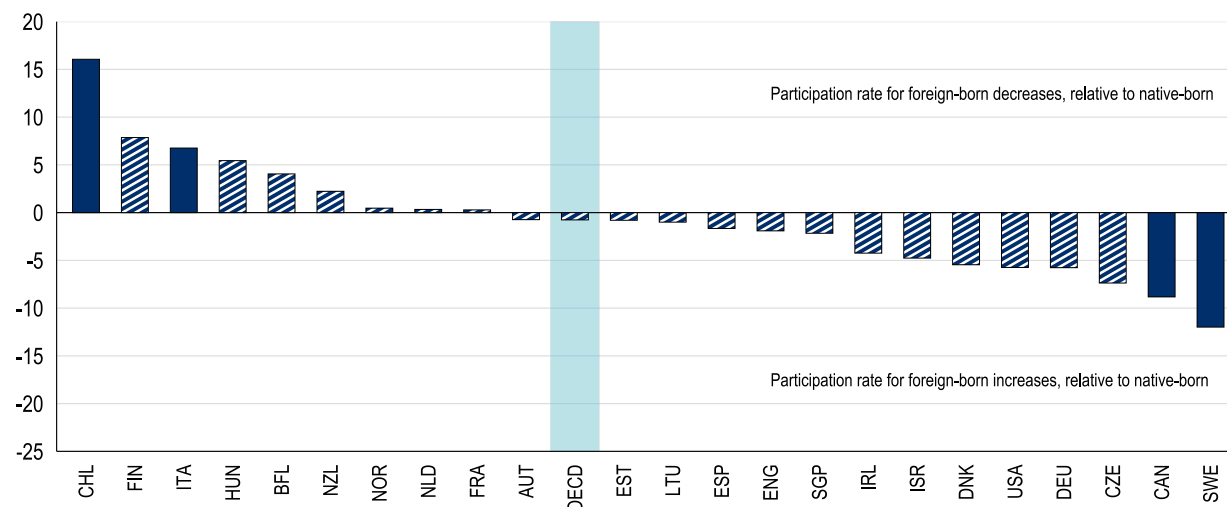
Note: Adults aged 25-65; formal and non-formal job-related learning in the 12 months prior to the survey. OECD is an unweighted average of all participating member countries except for, Japan, Korea, Poland, and the Slovak Republic, which are excluded due to low shares of foreign-born adults in their populations. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

For four countries, there has been a statistically significant change in the gap between native- and foreign-born adults between Cycle 1 and Cycle 2 (Figure 2.6). In Canada, for example, this change means that foreign-born adults have moved from being less likely than native-born adults to participate to being more likely than native-born adults. In Chile, foreign-born adults are now less likely than native-born adults to participate in adult learning, which was not the case in Cycle 1, whereas in Italy the gap between foreign-born and native-born has grown wider. There has not been a statistically significant change in the size of the gap, on average across all participating countries and economies.

Figure 2.6 Participation gaps have not moved between foreign- and native-born adults

Percentage point change in gap between foreign- and native-born adults



Note: Adults aged 25-65; formal and non-formal job-related learning in the 12 months prior to the survey. Figure plots the change, in percentage points, between Cycle 1 and Cycle 2 in the participation gap between foreign-born and native-born adults. The participation rate is equal to the participation rate for native-born minus the participation rate for foreign-born. Cycle 2 data refer to 2023; data for Cycle 1 refer to 2012, except for Chile, Israel, Lithuania, New Zealand, and Singapore (2015) and Hungary (2018). See Box 1.3 for a note on comparison of data between Cycle 1 and Cycle 2. Results that are not statistically significant at the 5% level ($p > 0.05$) are shown in striped bars. OECD is an unweighted average of all participating member countries except Japan, Korea, Poland, and the Slovak Republic, which are excluded due to low shares of foreign-born adults in their populations. See Box 1.1 for a precise definition of job-related adult learning.

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Adults with better-educated parents are far more likely to participate in learning

Parental education is commonly used as a proxy for an individual's socio-economic background; typically, families where one or both of the parents has attained a university degree tend to have higher overall household income, and children raised in these households tend to attain more advanced qualifications and earn more money themselves.

This section analyses adult learning participation rates for adults from high-status backgrounds (at least one parent completed a tertiary qualification), medium-status backgrounds (at least one parent completed upper secondary education, but no higher), and low-status backgrounds (neither parent completed upper secondary). Given the differences in resources between higher-status and lower-status families, one might expect participation rates for these groups to reflect the fact that adults from higher-status backgrounds have more opportunities available to them and tend to continue learning over the life-course, whereas adults with low-status backgrounds may encounter more barriers and less support in participating in adult learning.

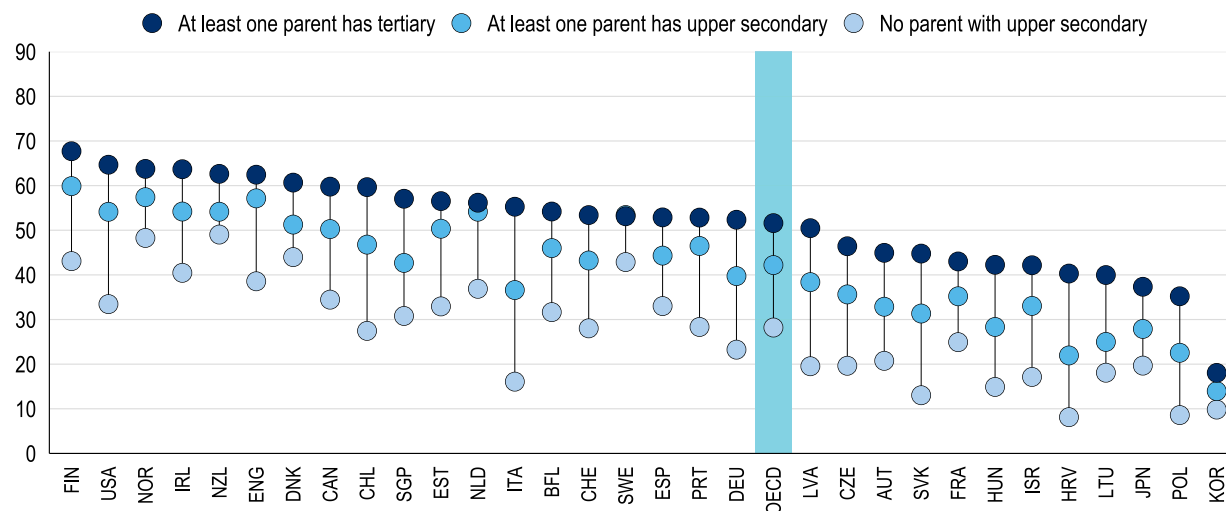
Indeed, across all participating countries and economies, adults from high-status backgrounds are more likely to participate in adult learning, just as adults whose parents have at most a lower secondary qualification are the least likely. This pattern holds true across all countries and economies, with just 28% of adults with low-status backgrounds participating in adult learning, on average, compared to 52% of adults from high-status backgrounds (Figure 2.7).

The size of participation gaps between adults with high- and medium-status background varies from country to country. There is no statistically significant difference between the participation rates for these

two groups in the Netherlands or Sweden. These countries also perform well in providing access to those from the lowest socio-economic backgrounds; in Norway and Sweden, along with Denmark and New Zealand, these adults are at least 70% as likely to participate in adult learning as those from the highest-status group, in relative terms. Conversely, the widest gaps between adults with high- and low-status background are in Chile, Croatia, Italy, Latvia, the Slovak Republic and the United States, where gaps are greater than 30 percentage points. Evidence suggests that a large share of the difference between adults of different socio-economic backgrounds is transmitted through adults' own educational attainment and occupation, as well as the fact that older adults – who are more likely to have less-educated parents – are also less likely to participate in adult learning (see Table 2.1).

Figure 2.7. Adults with higher-status social backgrounds participate in learning at higher rates

Participation in adult training by parental educational attainment, percentage



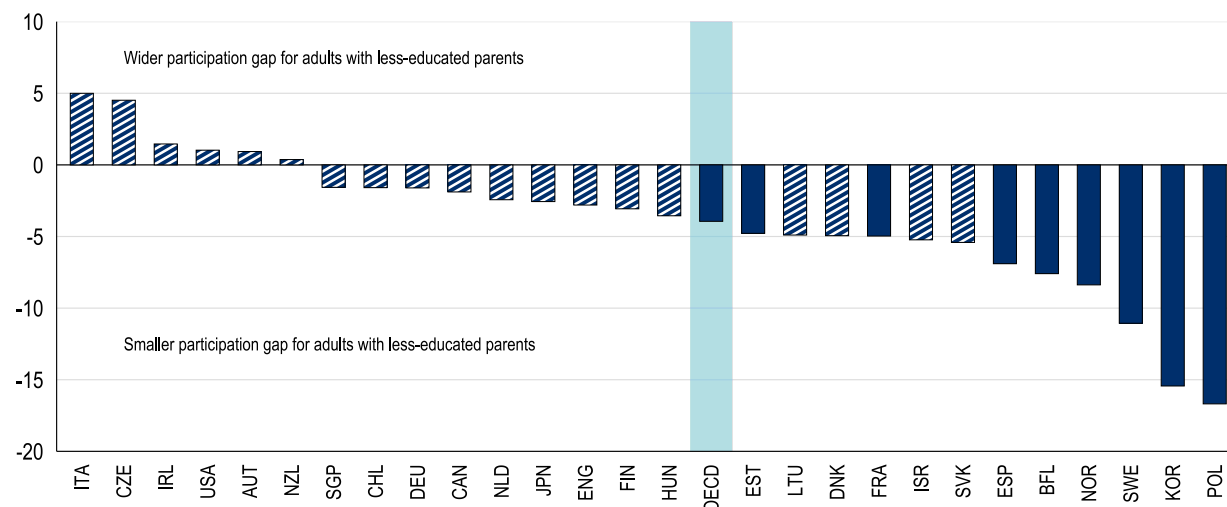
Note: Adults aged 25-65; formal and non-formal job-related learning in the 12 months prior to the survey. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported in the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

The participation gap between adults with high- and low-status backgrounds has shrunk slightly since the previous cycle of the Survey of Adult Skills, with participation gaps narrowing by 4 percentage points on average. For eight countries and economies, there were statistically significant reductions in the gap that were even larger, ranging from a reduction of 5 percentage points in Estonia to over 15 percentage points in Korea and Poland. Finding effective ways to improve access to adult learning opportunities for individuals from lower-status backgrounds would mark an important step in improving economic opportunities and social mobility for adults who are not born into advantaged families. Since the foundations for adult learning participation are laid in initial education, policies that promote equal opportunities for children from disadvantaged backgrounds are essential. For adults, given that socio-economic advantage is largely transmitted through educational attainment and occupation, targeted efforts should focus on improving access for those with lower qualifications or working in lower-skilled jobs.

Figure 2.8. The gap between adults with low-status and high-status backgrounds has shrunk

Percentage point change in participation gap between high- and low-status backgrounds



Note: Adults aged 25-65; formal and non-formal job-related learning in the 12 months prior to the survey. Figure plots the change, in percentage points, between Cycle 1 and Cycle 2 in the gap in participation rates between adults whose parents did not complete upper secondary (low-status background) and adults who had at least one parent with a tertiary degree (high-status background). Participation rate gaps for each cycle are equal to the participation rate for high-status background adults less the participation rate for adults with low-status backgrounds. Cycle 2 data refer to 2023; data for Cycle 1 refer to 2012, except for Chile, Israel, Lithuania, New Zealand, and Singapore (2015) and Hungary (2018). See Box 1.3 for a note on comparison of data between Cycle 1 and Cycle 2. Results that are not statistically significant at the 5% level ($p > 0.05$) are shown in striped bars. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2012, 2015, 2018, 2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Highly educated adults participate the most in adult learning

Research has consistently found that high-educated adults are most likely to benefit from adult learning, a phenomenon known as the Matthew effect – e.g. Blossfeld, Kilpi-Jakonen and de Vilhena (2020^[2]). Having a strong foundation of initial education means that adults have an aptitude for learning that continues over the life-course. Additionally, individuals with higher qualifications are more likely to work in careers where they are continually required to improve their skills or where their employers are more supportive of training for their employees.

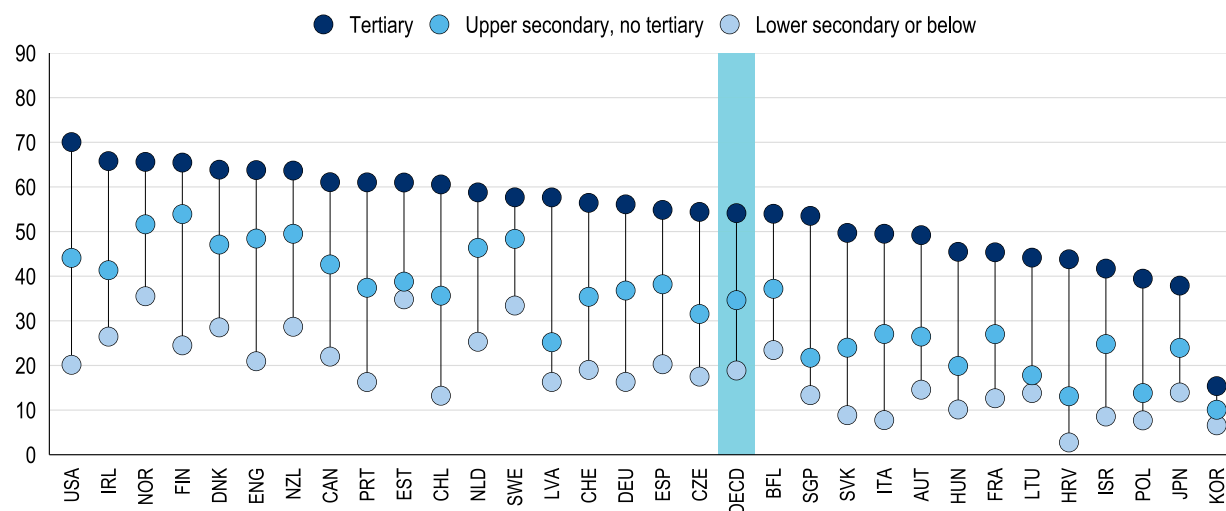
Gaps in participation between tertiary-educated adults and those who have not completed upper secondary education are the greatest of any category of gaps presented in this chapter, at 35 percentage points on average. Even the gap between those with tertiary education and those with upper-secondary (but no tertiary) is substantial, at 19 percentage points on average (Figure 2.9).

Moreover, in every participating country or economy, tertiary-educated adults are the most likely to have participated in adult learning and those who have not completed upper secondary are the least likely. In 20 of 31 participating countries and economies, at least half of tertiary-educated adults took part in adult learning within the 12 months preceding the survey. By contrast, only three countries have participation rates above 30% for adults who do not hold an upper secondary qualification (Estonia, Norway, and Sweden).

The largest absolute gaps between the highest- and lowest-educated adults are in Chile, Portugal, and the United States, where tertiary-educated adults are at least 45 percentage points more likely to have participated in adult learning. Relative gaps for these countries are also above the average for participating countries and economies, where the highest-educated adults are between 2.5 and 3.6 times as likely as the lowest-educated to have participated in adult learning.

Figure 2.9. Adults with tertiary degrees are most likely to participate in adult learning

Participation in adult learning by educational attainment, percentage



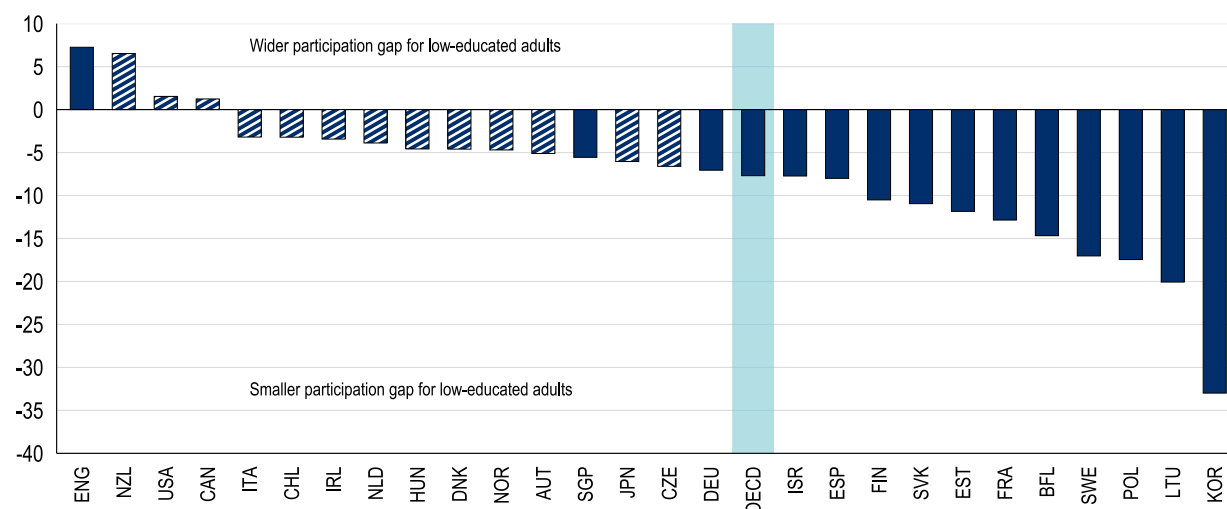
Note: Adults aged 25-65; formal and non-formal job-related learning in the 12 months prior to the survey. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

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On average, the gap between highly educated adults and those with less education shrank by 8 percentage points. Compared with Cycle 1, nine countries saw a decrease in the educational attainment gap of 10 percentage points or more (Figure 2.10). For countries such as Estonia and Sweden, this improvement builds upon participation rates that were already more equitable than the average for other OECD countries. Although the lowest-educated adults in France, Korea, and the Slovak Republic had below-average participation rates in Cycle 1, these adults saw their relative likelihood of participating improve by over 10 percentage points (over 30 points in Korea). Conversely, participation gaps for low educated adults widened by 7 percentage points in England (United Kingdom). In most cases, the reduction in the gap was driven by the fact that the participation rate decreased more sharply among the more highly educated.

Figure 2.10. Most countries have reduced the participation gap of the low educated

Percentage point change in participation gap between adults with low and high educational attainment



Note: Adults aged 25-65; formal and non-formal job-related learning in the 12 months prior to the survey. Figure plots the change, in percentage points, between Cycle 1 and Cycle 2 in the participation gap for adults who did not complete upper secondary, compared to all other adults. The participation gap is equal to the participation rate for higher-educated adults minus the participation rate for the least-educated adults. Cycle 2 data refer to 2023; data for Cycle 1 refer to 2012, except for Chile, Israel, Lithuania, New Zealand, and Singapore (2015) and Hungary (2018). See Box 1.3 for a note on comparison of data between Cycle 1 and Cycle 2. Results that are not statistically significant at the 5% level ($p > 0.05$) are shown in striped bars. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2012, 2015, 2018, 2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

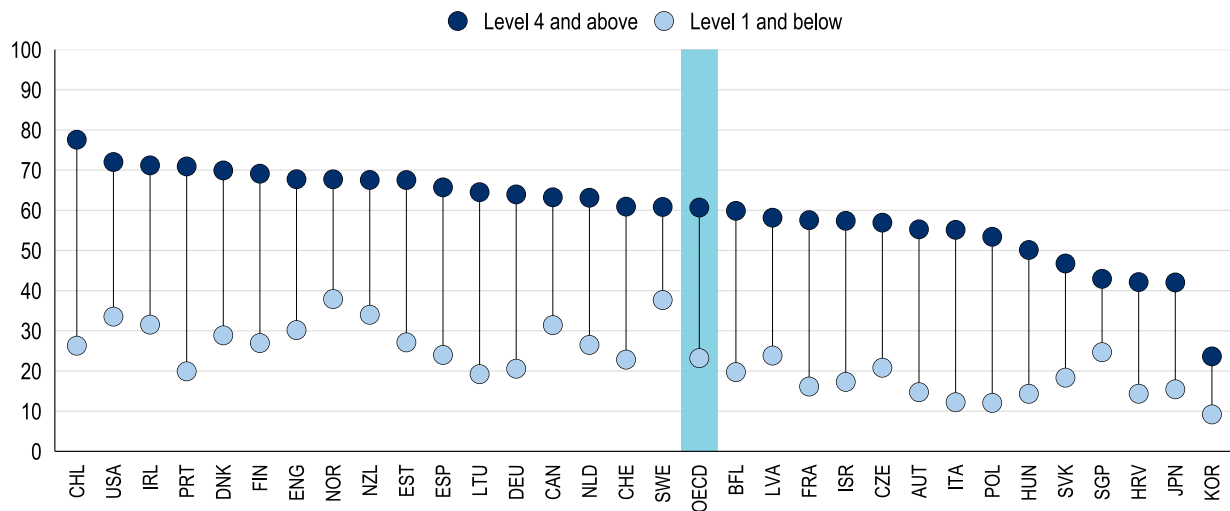
...so do adults with high skills

Adults with the lowest skill levels in literacy (Level 1 and below) are the least likely to participate in adult learning (23%), and those with the highest proficiency in literacy (Level 4 and above) are the most likely to participate, with 61% engaging adult learning in the 12 months preceding the survey, on average across OECD countries and economies (Figure 2.11). This pattern mirrors disparities in educational attainment, where individuals with higher qualifications are also more likely to participate in adult learning (the two variables are, in any case, correlated). Box 2.1 describes in greater detail the skills proficiency domains used in the Survey of Adult Skills and how proficiency scores are categorised into proficiency levels.

The largest absolute gaps in participation between the highest- and lowest-skilled adults are found in Chile and Portugal, where participation rates differ by just over 50 percentage points. In relative terms, gaps are greatest in Italy and Poland, where the lowest-skilled adults participate at rates less than a quarter of the rate of the highest-skilled. Norway, Singapore, and Sweden, on the other hand, have the lowest relative gaps by skill level. Some countries, such as Ireland, New Zealand, and Norway manage to combine high overall participation rates with high inclusion of the lowest-skilled in adult learning.

Figure 2.11. Participation rates are highest for those with high literacy proficiency

Participation rate by skill level, percentage



Note: Adults aged 25-65; formal and non-formal job-related learning in the 12 months prior to the survey. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning. See note for Poland in the *Reader's Companion* (OECD, 2024^[3]).

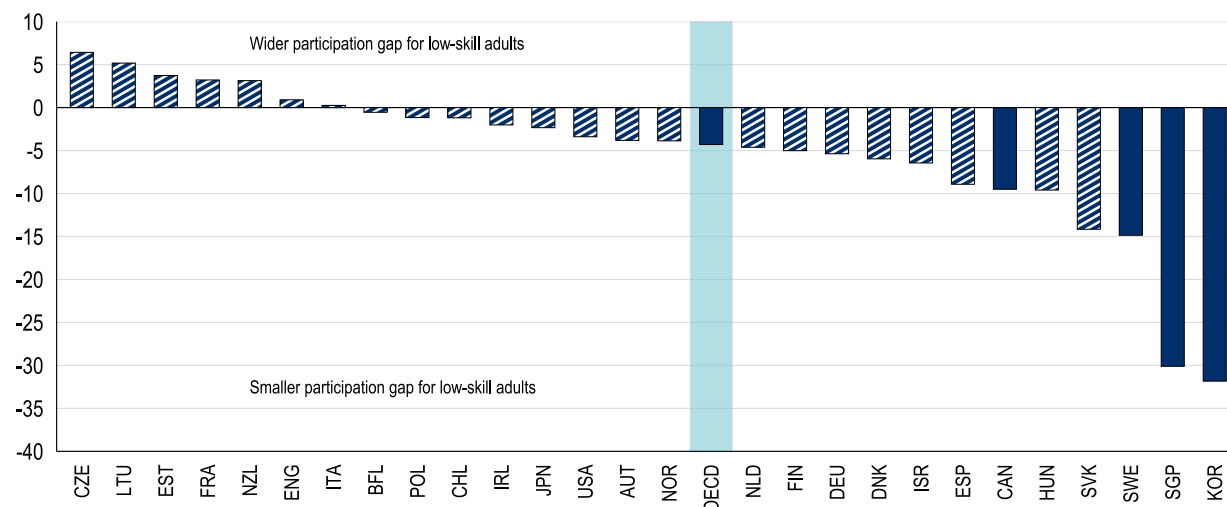
Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Figure 2.12 plots the change in the participation gap between adults with high literacy proficiency (Level 4 and above) and low literacy proficiency (Level 1 and below). On average across participating countries and economies, there was a slight reduction of 4 percentage points in adult learning participation rates for the highest-skilled and lowest-skilled adults, between Cycle 1 and Cycle 2. Individually, just four countries managed to shrink the participation gap between low- and high-skilled adults (changes for other countries were not statistically significant). In Korea and Singapore, the gap decreased by 30 percentage points or more, while for Canada and Sweden the gap shrank by 10 to 15 percentage points. There were no countries with statistically significant increases in the participation gap between low- and high-skilled adults.

However, interpreting changes in these participation gaps over time requires some caution. These trends reflect a combination of actual behavioural changes and potential shifts in the population composition within each skill group. For instance, if the proportion of adults performing at a given proficiency level changes over time, the observed differences in participation may be partly due to changes in the composition of the group rather than to actual behavioural changes among individuals with similar skills. Without decomposing these effects, it is difficult to determine whether narrowing gaps reflect real improvements in access or simply changes in population structure.

Figure 2.12. On average, participation gaps for literacy proficiency have not changed since Cycle 1

Percentage point change in literacy proficiency gap between low and high-skilled adults



Note: Adults aged 25-65; formal and non-formal job-related learning in the 12 months prior to the survey. Figure plots the change, in percentage points, between Cycle 1 and Cycle 2 in the participation gap for adults with low literacy proficiency (Level 1 and below) compared to high-proficiency adults (Level 4 and above). The participation gap is equal to the participation rate for these higher-skilled adults minus the participation rate for lower-skilled adults. Cycle 2 data refer to 2023; data for Cycle 1 refer to 2012, except for Chile, Israel, Lithuania, New Zealand, and Singapore (2015) and Hungary (2018). See Box 1.3 for a note on comparison of data between Cycle 1 and Cycle 2. Results that are not statistically significant at the 5% level ($p > 0.05$) are shown in striped bars. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning. See note for Poland in the *Reader's Companion* (OECD, 2024^[3]).

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2012, 2015, 2018, 2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Box 2.1. Skill proficiency in the Survey of Adult Skills

Measuring adult proficiency is central to the Survey of Adult Skills. To accurately assess and compare adult skills, the 2023 Survey of Adult Skills had adults complete a set of tasks covering three areas: literacy, numeracy, and adaptive problem solving. Adults' performance in the assessment tasks was then used to assign scores to each adult for each proficiency domain using a 500-point scale. At each point on the scale, an individual with a given level of proficiency has a 67% chance of successfully completing tasks located at that same level. These scores were grouped into broader proficiency levels, ranging from Below Level 1 to Level 5.

Adults' scores across the three domains are correlated, but not perfectly predictive of one another. Numeracy and literacy were assessed during both cycles of the Survey of Adult Skills; for simplicity's sake, this report makes use of proficiency levels in literacy, comparing adults who performed at or above Level 4 with those who performed at or below Level 1. Adults with literacy proficiency at or above Level 4 can read long and dense texts and make inferences based on the text that involve accessing, understanding, evaluating, and reflecting on the content and sources of the text. Adults at Level 1 are able to locate information on a text page and understand the meaning of short texts as well as the organisation of lists or multiple sections within a single page; they struggle to access and understand information in longer texts that contain some distracting information.

More information on Cycle 2 of the Survey of Adult Skills is available in the report *Do Adults Have the Skills They Need to Thrive in a Changing World?: Survey of Adult Skills 2023* (OECD, 2024^[4]).

Economic inequalities

Economic background characteristics such as employment status or income level strongly influence access to adult learning. Individuals who are inactive in the labour market and those who earn low incomes are nearly uniformly less likely to have participated in adult learning than their more advantaged counterparts. Policies that remove barriers and promote participation among these groups of adults have the potential to help them develop skills and improve their labour market outcomes.

Amid a trend towards lower overall training participation rates, some countries have seen an improvement in the *relative* share of training participants who come from disadvantaged groups. In these cases, efforts to expand access to adult learning should identify and build on the factors that have enabled these countries to achieve a more uniform participation rate across the population.

Most countries have shrunk participation gaps for low earners

Adult learning can lead to higher earnings by boosting worker productivity. Since higher earners are also more likely to participate in training, this suggests a mutually reinforcing relationship – those who train tend to earn more, and those who earn more are more likely to train. Figure 2.13 compares adult learning participation rates between the highest-earning 25% of employed adults and the lowest-earning 25% of adults within each country (i.e. the top and bottom quartile of the earnings distribution). The highest earning workers are 24 percentage points more likely to participate in adult education and training, on average across OECD countries and economies (58% compared to 34%).

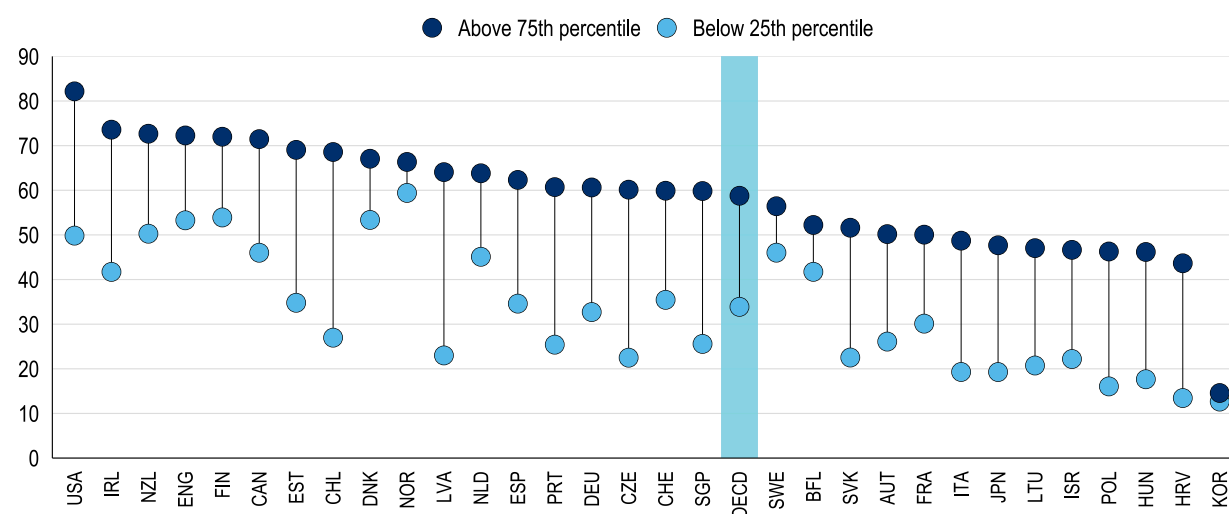
In 22 out of 31 participating countries and economies, over half of top earners have participated in some form of adult learning in the past year; this is true for the lowest earners only in 6 countries. At 57%, Norway has the highest participation rate for the bottom quartile of earners, and the smallest absolute gap in participation rates, at 8 percentage points (barring Korea). It also has the smallest relative gap: low-earning

workers are nearly 90% as likely to participate as high earners. Sweden, Denmark, and the Flemish Region (Belgium) have similarly low relative gaps. The same is also true for Korea, though far fewer adults reported adult learning during the past year overall.

The largest absolute participation gaps, on the other hand, are in Chile, Latvia, and Portugal – all above 35 percentage points. Along with Croatia, Hungary, and Poland, relative gaps are also comparatively high, with the lowest-earning quintile less than 40% as likely to have participated in adult learning than the richest.

Figure 2.13. High earners are uniformly more likely to participate in adult learning

Participation in adult learning by income quartile, percentage



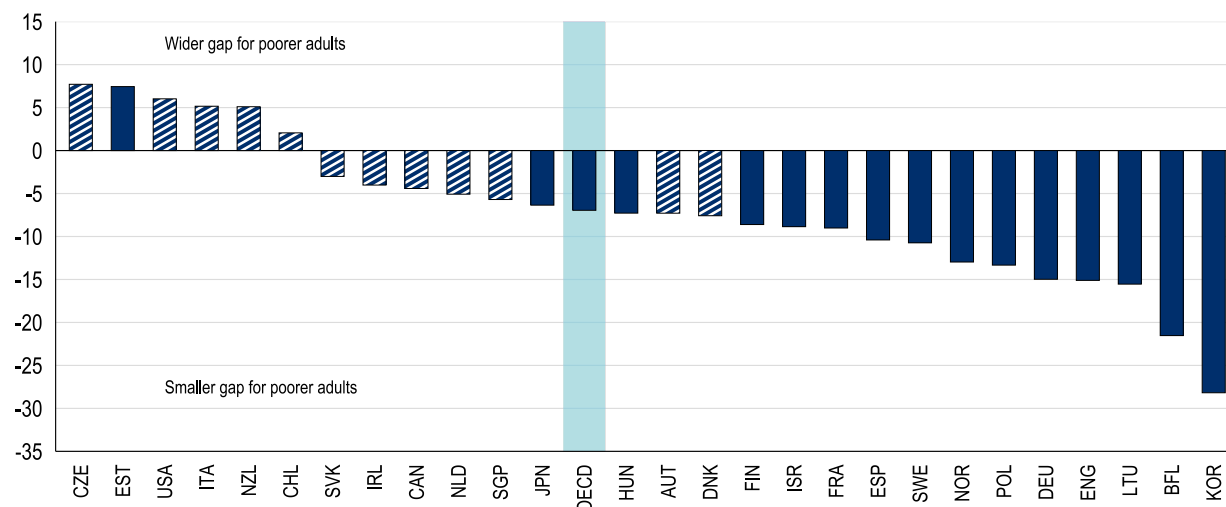
Note: Adults aged 25-65; formal and non-formal job-related learning in the 12 months prior to the survey. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Fourteen countries saw statistically significant decreases in the participation gap between the lowest earners and the highest earners between Cycle 1 and Cycle 2. In nine of these countries the gap shrank by 10 percentage points or more (Figure 2.14). Identifying what enabled training participation and building on this trend may help lower earners to become more productive and improve their earning potential.

Figure 2.14. Earnings-related participation gaps have narrowed for most countries

Percentage point change in participation gaps by earnings quartile



Note: Adults aged 25-65; formal and non-formal job-related learning in the 12 months prior to the survey. Figure plots the change, in percentage points, between Cycle 1 and Cycle 2 in the participation gap for the 25% of adults with the lowest earnings compared to the 25% of adults with the highest earnings. The participation gap is equal to the participation rate for higher-earning adults minus the participation rate for lower-earning adults. Cycle 2 data refer to 2023; data for Cycle 1 refer to 2012, except for Chile, Israel, Lithuania, New Zealand, and Singapore (2015) and Hungary (2018). See Box 1.3 for a note on comparison of data between Cycle 1 and Cycle 2. Results that are not statistically significant at the 5% level ($p > 0.05$) are shown in striped bars. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

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Unemployed workers struggle to access adult learning

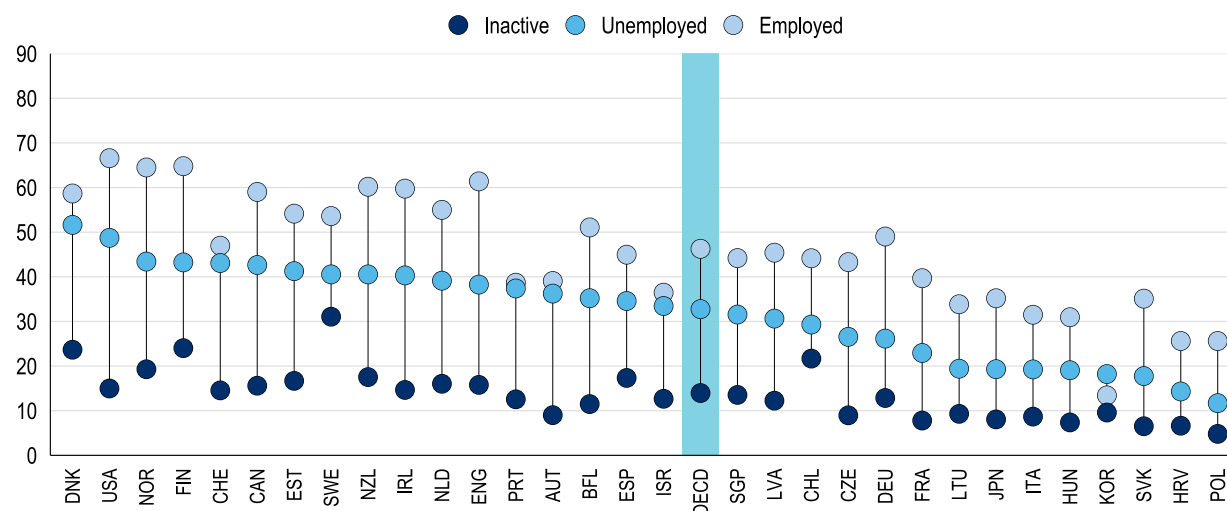
Most adult learning takes place at the workplace (see Chapter 3); indeed, in all participating countries (save for Korea), employed workers are more likely than unemployed workers to have participated in adult learning in the 12 months prior to the survey. Since most adult learning is employer-provided, unemployed workers have fewer opportunities to participate.³ Nevertheless, supporting unemployed adults to accessing adult learning can help them improve their skills, or learn new ones, and thereby improve their chances of finding employment. Countries that incorporate adult learning into their active labour market programmes can therefore help to compensate for these difficulties in accessing training. In countries such as Austria or Switzerland, who emphasise training for unemployed adults, these gaps are far smaller. Moreover, adults who do participate in training tend to participate in trainings that are longer in duration.

On average across participating countries and economies, 43% of employed adults report having taken part in adult learning in the past 12 months, compared to 36% of unemployed adults (Figure 2.15). Inactive adults are uniformly the least likely to have participated, at 14% overall.

The largest gaps in participation rates between employed and unemployed adults are in England (United Kingdom), Finland, Germany, and Norway, at over 20 percentage points. The smallest gaps in both relative and absolute terms are in Austria, Denmark, Israel, Portugal, and Switzerland – in each of these countries, the rate for unemployed workers is higher than the OECD average. An outlier is Korea, where unemployed adults are 5 percentage points more likely than employed adults to report participating in adult learning.

Figure 2.15. Unemployed adults access adult learning at lower rates than employed adults

Participation in adult learning by employment status, percentage



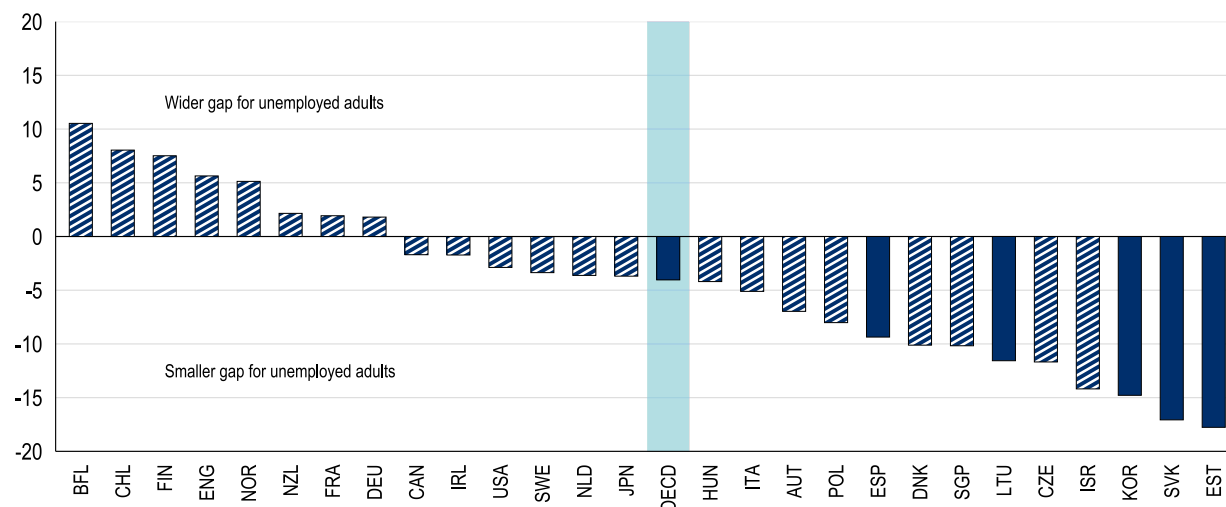
Note Adults aged 25-65; formal and non-formal job-related learning in the 12 months prior to the survey OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Over the past decade, in five countries the participation gap between unemployed and employed adults narrowed (Figure 2.16). The average change across participating countries and economies was a decline of 4 percentage points. In general, declines in the participation gaps between employed and unemployed adults has been driven by the fact that declines in participation are more pronounced among employed adults than among the unemployed. While it is beyond the scope of this report to establish with certainty what explains the changes in participation rates between cycles, changes in the composition of unemployed and employed groups may account in part for some changes. In the first international report on the second cycle of the Survey of Adult Skills (OECD, 2024^[4]), for instance, it was noted that the share of unemployed adults shrank between cycles for virtually all participating countries.

Figure 2.16. Participation for unemployed adults has improved in ten countries since Cycle 1

Percentage point change in participation gap by employment status



Note: Adults aged 25-65; formal and non-formal job-related in the 12 months prior to the survey. Figure plots the change, in percentage points, between Cycle 1 and Cycle 2 in the participation gap for unemployed adults compared to employed adults. The participation gap is equal to the participation rate for employed adults minus the participation rate for unemployed adults. Cycle 2 data refer to 2023; data for Cycle 1 refer to 2012, except for Chile, Israel, Lithuania, New Zealand, and Singapore (2015) and Hungary (2018). See Box 1.3 for a note on comparison of data between Cycle 1 and Cycle 2. Results that are not statistically significant at the 5% level ($p > 0.05$) are shown in striped bars. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2012, 2015, 2018, 2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

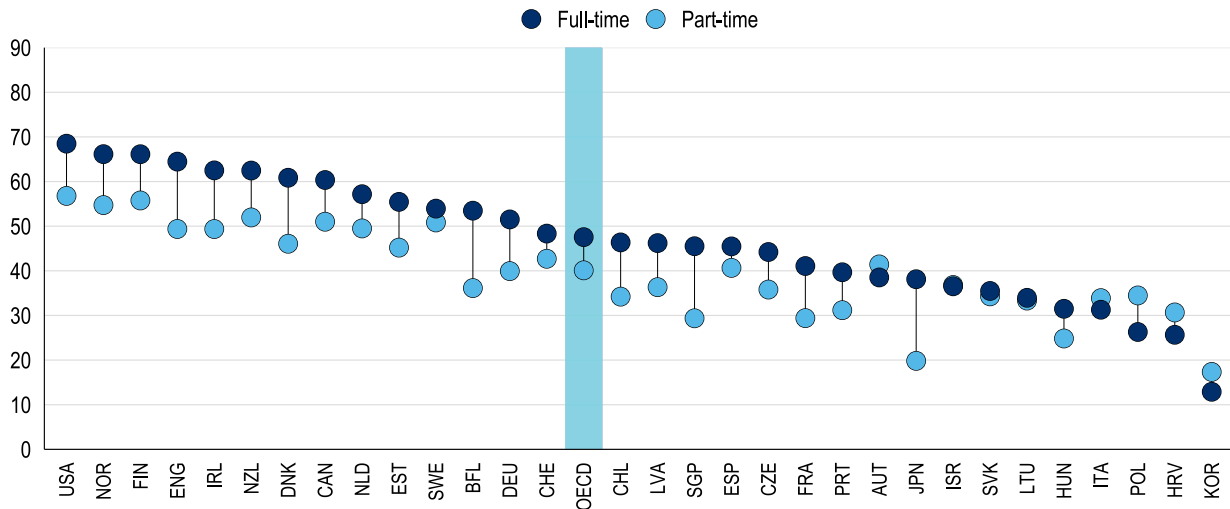
Full-time workers participate in adult learning more than part-time workers

On average, individuals who work full-time (i.e. over 30 hours per week) are more likely to participate in adult learning, at 48% compared to 40% (Figure 2.17). The largest gaps are in the Flemish Region (Belgium), Japan, and Singapore, at over 15 percentage points. These three countries also have the largest relative gaps, with part-time-employed adults less than 70% as likely to report participation in adult learning in the past 12 months. In Austria, Croatia, Italy, Korea, and Poland, part-time-employed adults are more likely than full-time-employed adults to participate in learning.

For five countries, the gap between the participation rate for part-time-employed adults and full-time-employed workers narrowed between Cycle 1 and Cycle 2 (Figure 2.18). This change was driven primarily by declines in the participation rate for full-time employed workers. The gap declined by 4 percentage points, on average across all OECD countries and economies.

Figure 2.17. Average participation rates are higher for adults who are employed full-time

Participation in adult learning by full-time employment status, percentage

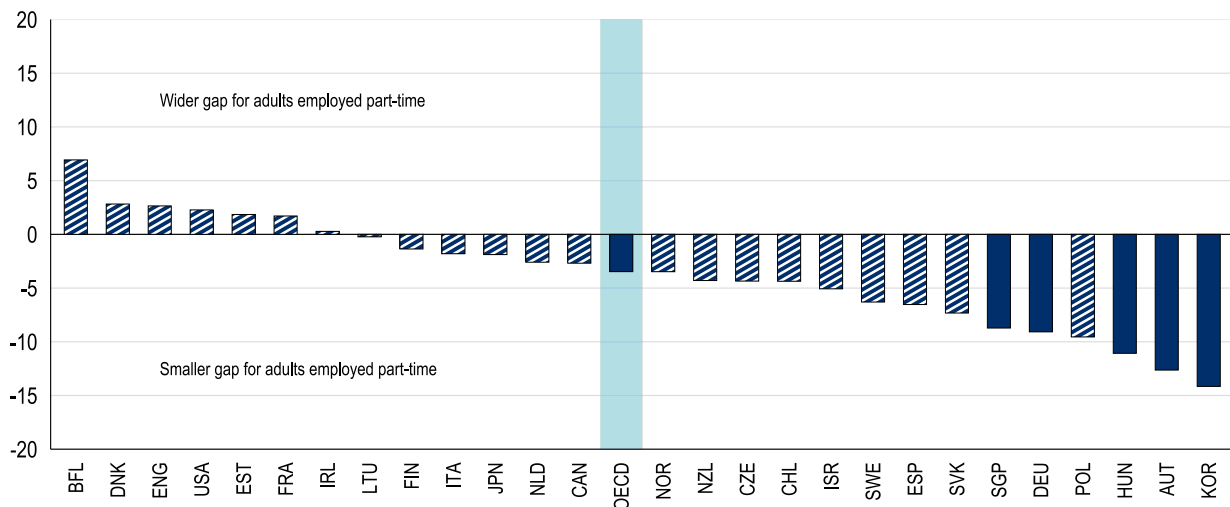


Note: Employed adults aged 25-65; formal and non-formal job-related learning. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Figure 2.18. The participation gap between full-time and part-time workers shrank

Percentage point change in participation gaps by full-time employment status



Note: Employed adults aged 25-65; formal and non-formal job-related learning. Figure plots the change, in percentage points, between Cycle 1 and Cycle 2 in the participation gap for part-time employed adults compared to full-time employed adults. The participation gap is equal to the participation rate for full-time employed adults minus the participation rate for part-time employed adults. Cycle 2 data refer to 2023; data for Cycle 1 refer to 2012, except for Chile, Israel, Lithuania, New Zealand, and Singapore (2015) and Hungary (2018). See Box 1.3 for a note on comparison of data between Cycle 1 and Cycle 2. Results that are not statistically significant at the 5% level ($p > 0.05$) are shown in striped bars. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2012, 2015, 2018, 2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Industry and occupational inequalities

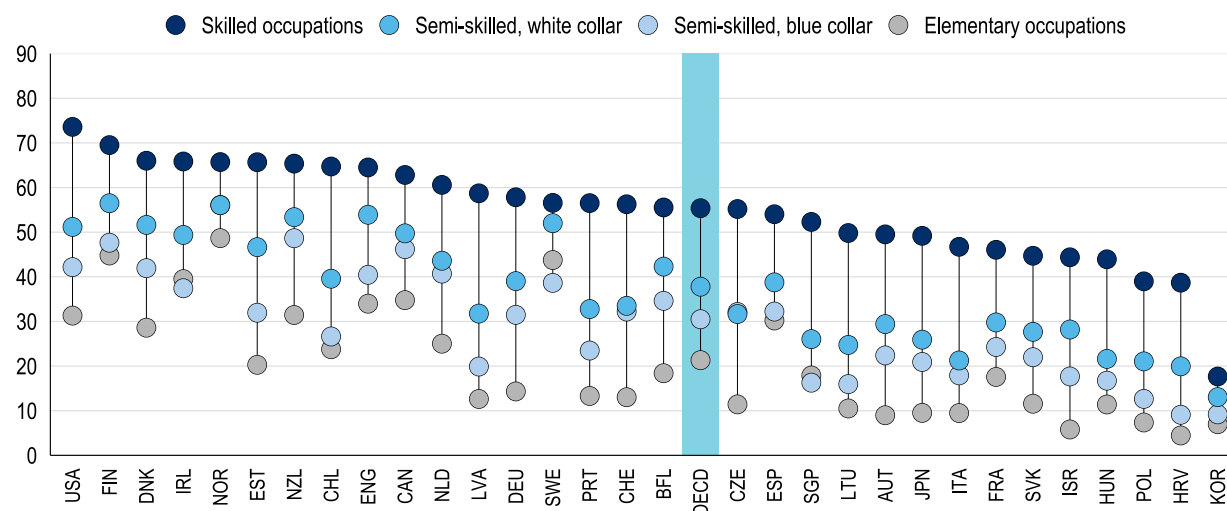
Participation in adult learning is not only influenced by socio-demographic and economic factors but also varies significantly between industrial sectors and occupations. Knowledge-intensive sectors, such as technology, finance, and healthcare, often offer more opportunities for adult learning and skills development. These industries tend to invest heavily in training and development, ensuring that their workforce remains competitive in a rapidly changing labour market. In contrast, workers in low-skill or precarious sectors, such as retail, manufacturing, or construction, face more limited opportunities for professional development. This disparity is further exacerbated by employer attitudes toward training, with those in high-skill sectors more likely to see workforce education as a strategic investment and support adult learning for their employees (OECD, 2024^[5]). Additionally, as occupational structures have evolved over time, shifts in industry demands have reinforced these inequalities, with high-skill roles increasingly requiring continuous learning to keep pace with technological advances. This section explores these disparities, highlighting how industry-specific factors and occupational hierarchies contribute to unequal access to adult learning opportunities.

Workers in skilled occupations are far more likely to participate in adult learning

Workers in skilled occupations are the most likely to participate in adult learning for every country and economy; in many cases, the gap between even skilled occupations, such as health technicians or lawyers, and semi-skilled white-collar occupations, such as office clerks or customer service representatives, remains quite stark; in 11 countries, for example, the participation rate for semi-skilled white collar workers is closer to the participation rate for workers in elementary occupations (such as cleaners or kitchen assistants) than it is to skilled occupations (Figure 2.19). Countries such as Finland, Norway, and Sweden have been most successful in enabling access to learning for the least-skilled workers: participation for workers in elementary occupations in these countries is still higher (above 40% in all three countries) than the average participation rate for semi-skilled blue collar workers across OECD countries and economies, at 30%.

Figure 2.19. Workers in skilled occupations are more likely to participate in adult learning

Participation in adult learning by skill level of occupation, percentage



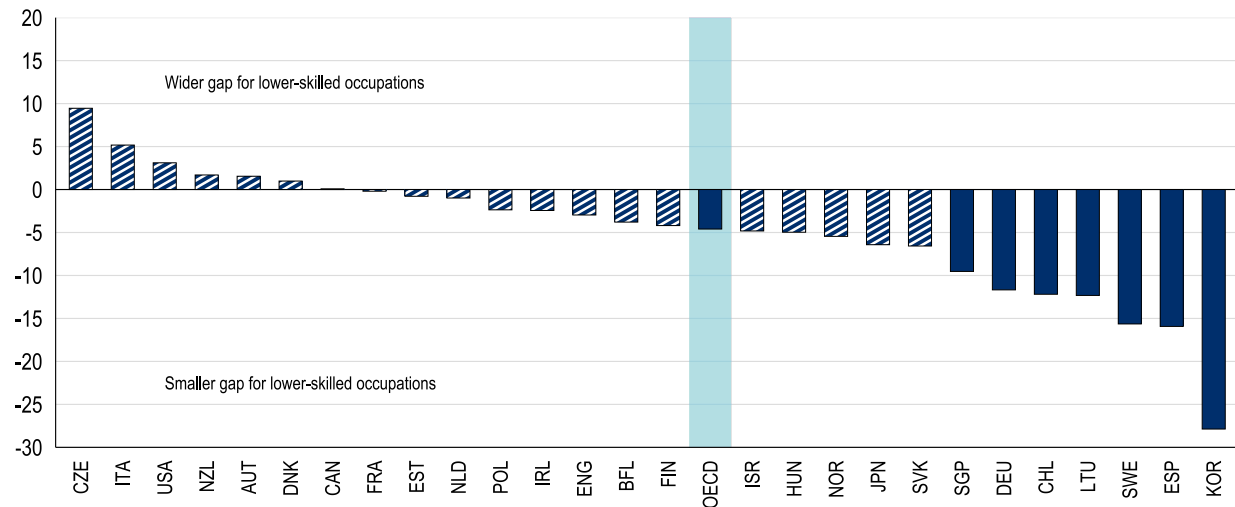
Note: Employed adults aged 25-65; formal and non-formal job-related learning. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

The gap between adult learning for skilled occupations and elementary occupations has shrunk by 4 percentage points, on average, since Cycle 1. Seven countries saw significant decreases in the gap between participation rates for adults in high-skilled and low-skilled occupations. The greatest decrease, by far, was in Korea, where the gap shrank by 27 percentage points between cycles. This was driven largely by the fact the declining participation was much more pronounced among individuals in high-skilled occupations.

Figure 2.20. Some countries have succeeded in increasing learning among elementary occupations

Percentage point change in participation gap by skill level of occupation



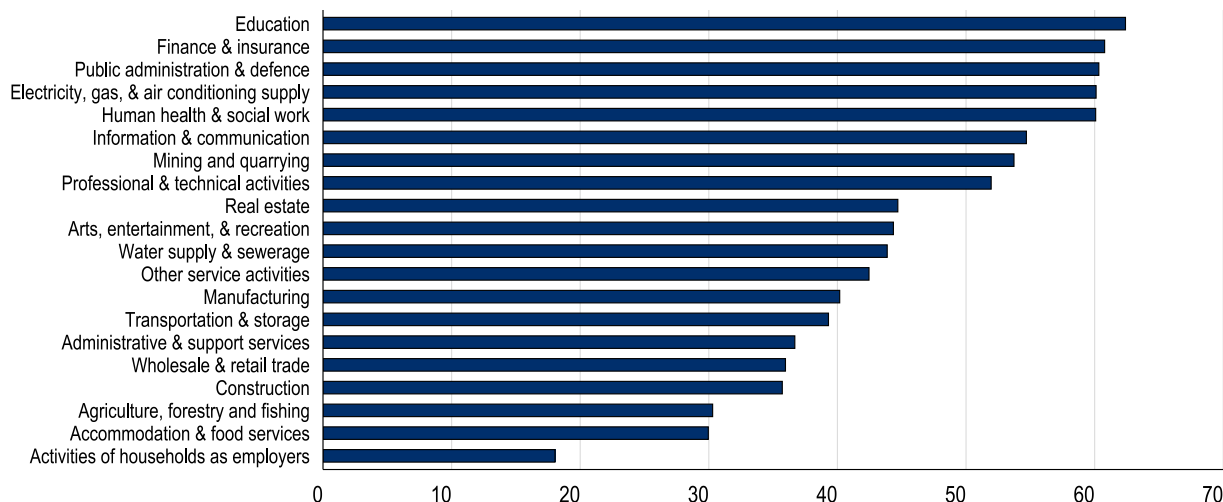
Note: Employed adults aged 25-65; formal and non-formal job-related learning. Figure plots the change, in percentage points, between Cycle 1 and Cycle 2 in the participation gap for lower-skilled occupations compared to higher-skilled occupations. The relative participation rate is equal to the participation rate for high-skilled minus the participation rate for low-skilled. Cycle 2 data refer to 2023; data for Cycle 1 refer to 2012, except for Chile, Israel, Lithuania, New Zealand, and Singapore (2015) and Hungary (2018). See Box 1.3 for a note on comparison of data between Cycle 1 and Cycle 2. Results that are not statistically significant at the 5% level ($p > 0.05$) are shown in striped bars. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2012, 2015, 2018, 2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

There is considerable variation in adult learning participation between industries. Those sectors where it is most prevalent, such as the public sector, finance and insurance or utilities, have participation rates around 60%. This is more than double the rate for sectors such as agriculture, forestry, and fishing and those working in hospitality. Manufacturing – one of the largest sectors of employment – is still significantly lower, at 40%.

Figure 2.21. The prevalence of adult learning varies considerably over industrial sectors

Average participation rate in adult learning by industrial sector



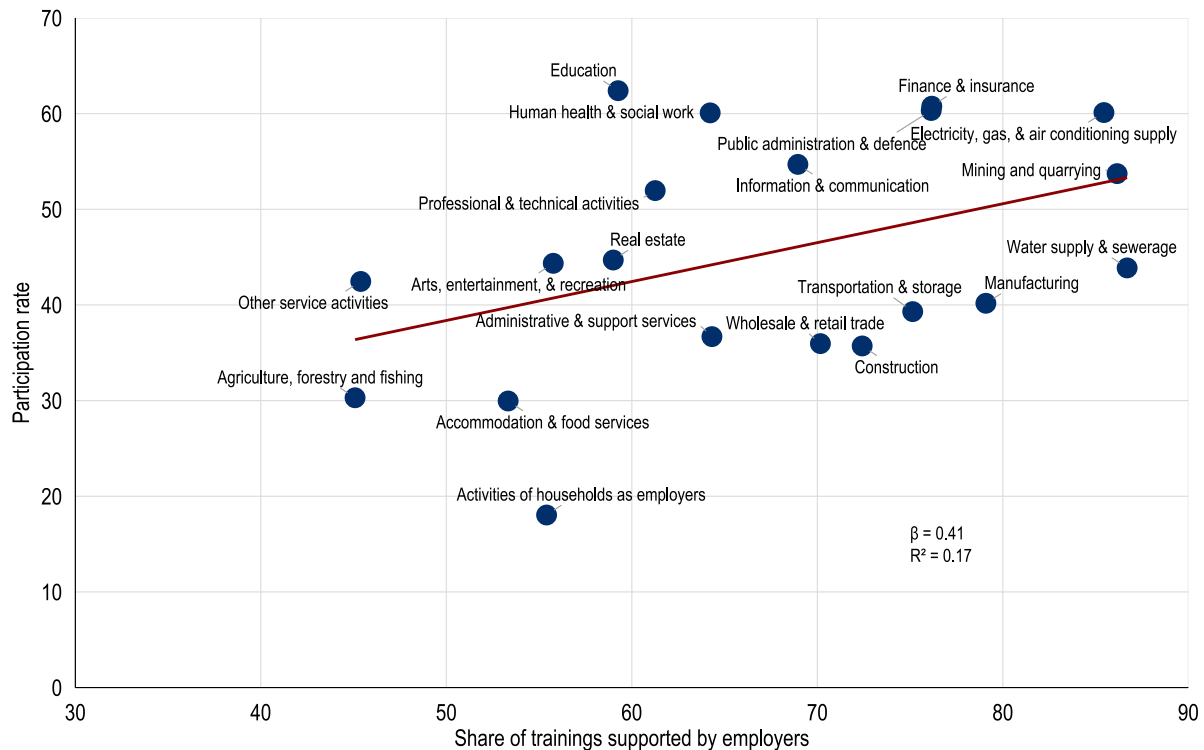
Note: Employed adults aged 25-65; formal and non-formal job-related learning in the 12 months prior to the survey. Industries are grouped according to the International Standard Industrial Classification of All Economic Activities (ISIC) one-digit industry codes. Average participation rates are the unweighted averages across all participating OECD countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported in the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

These disparities likely reflect each industry's skill requirements and the capacity – or willingness – of employers to invest in employees. Where an industry is more reliant on highly skilled workers who need to remain up to date on advances in technology or who can adapt to changing skill and knowledge requirements, these industries are also more likely to invest themselves in training their employees. Figure 2.22 plots the relationship between the participation rate within a given industry and the share of trainings that were paid for by employers.

Figure 2.22. Employer support for training is associated with higher participation rates overall

Relationship between overall participation in adult learning and the prevalence of employer-supported learning



Note: Employed adults aged 25-65; formal and non-formal job-related learning in the 12 months prior to the survey. Industries are grouped according to the International Standard Industrial Classification of All Economic Activities (ISIC) one-digit industry codes. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2012, 2015, 2018, 2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Drivers of disparities in participation rates

Many of the individual characteristics discussed in this section are associated with one another; for instance, earnings are correlated with adults' age and proficiency level, and parental education is associated with educational attainment. In this case, it can be a challenge to understand whether a variable directly affects participation outcomes, or only does so via its association with another variable. To better understand the direct association of one individual characteristic with the likelihood that an adult will participate in adult learning, it is useful to estimate the probability of participation within a regression framework, controlling for multiple characteristics that may influence the likelihood of adult learning participation. Table 2.1 summarises the results from a series of models that regress this likelihood on a variety of individual characteristics.

The leftmost column summarises the associations between each variable and the likelihood of participating in training across OECD countries and economies without including any other control variables. Subsequent columns contain various combinations of control variables. Notably, age is an important predictor of adult learning participation; even when accounting for one's education or whether one has children – among other variables – there is a 12% to 20% decline in the probability of participating in adult learning when comparing adults aged 55-65 to those aged 25-34. This is different from parental education,

where the estimated effect of an increase in parental education from upper secondary to tertiary education on the probability of participation is 23% when no other variables are included in the model, but falls to under 4% if one controls for wages, the skill level of one's occupation, and a suite of other socio-demographic variables. This indicates that the association between parental education and participation is largely mediated through these other variables, such as an individual's own education level (14%) or wages.

This analysis also provides a more nuanced view of how gender, immigrant background, and variables on one's family and household interact. Consistent with the findings presented above, the estimated effect sizes of gender remain quite small across all models, and the effect of being born in one's country of residence (native born) is consistently between 4% and 5%, even when controlling for other variables. On the other hand, in a simple bivariate regression, having young children (under 14 years of age) is associated with a 6% *increase* in the likelihood of participation. Nevertheless, once additional socio-demographic controls are included in the regression the picture becomes more complex, and the effects of having children are, in fact, ambiguous.

Variables such as educational attainment, wages, the skill requirements of one's occupation, and whether or not one is employed in the first place remain important predictors of participation in adult learning: the (statistically significant) estimated effects of these variables range from 10% to 20% even in regression models that control for other socio-demographic characteristics. The most powerful predictor of participation is occupational skill (model 6). Even after accounting for age, gender, social background, education, and wages, being in a high-skilled white-collar occupation is associated with a 22% increase in the likelihood of participating in training compared to adults in occupations with elementary skill requirements. Efforts to reduce disparities in access to adult learning should begin from an understanding that access is strongly mediated by the nature of one's employment.

Table 2.1. Summary of characteristics that predict participation in adult learning

Percentage change in probability of participation in adult learning for each variable

	Single regressor	Socio-demographic characteristics		Educational attainment and skills		Wages and occupation	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Socio-demographic characteristics							
Age group: 55-65 (ref. 25-34)	-24.7** (0.00)	-19.4** (0.00)	-19.4** (0.00)	-18.7** (0.00)	-16.6** (0.00)	-11.8** (0.00)	-13.5** (0.00)
Woman	-0.4 (0.19)	-1.7** (0.00)	-1.4** (0.00)	-1.8** (0.00)	-1.7** (0.00)	1.6** (0.00)	-1.1* (0.02)
Has children	6.1** (0.00)	-1.7** (0.00)	-0.1 (0.95)				
Lives alone	-2.2** (0.00)	-1.9** (0.00)	-1.9** (0.00)				
Native-born	3.7** (0.00)	4.7** (0.00)	4.7** (0.00)				
Parental education: tertiary (ref. below upper secondary)	23.4** (0.00)	7.4** (0.00)	7.4** (0.00)	7.3** (0.00)	4.7** (0.00)	3.5** (0.00)	5.0** (0.00)
Mother (Woman*Has children)	5.2** (0.00)		-3.4** (0.00)				
Educational attainment and skills							
Tertiary education (ref. below upper secondary)	35.3** (0.00)	29.1** (0.00)	29.2** (0.00)	29.4** (0.00)	22.9** (0.00)	13.8** (0.00)	16.1** (0.00)
Literacy proficiency: Level 4 (ref. Level 1 and below)	37.5** (0.00)				19.9** (0.00)		
Occupational characteristics							
Wages (log)	22.1** (0.00)					11.7** (0.00)	15.3** (0.00)
Occupational skill: Elementary occupations (ref. skilled occupations)	-34.1** (0.00)					-21.6** (0.00)	
Industry controls (Y/N)		N	N	N	N	N	Y
R squared		0.11	0.11	0.11	0.12	0.11	0.13

Note: Adults aged 25-65; formal and non-formal job-related learning in the 12 months prior to the survey. See Box 1.1 for a precise definition of job-related adult learning. P-values are reported in parentheses. Statistical significance at the 1% level is denoted by **; statistical significance at the 5% level is denoted by *. This table presents the results of an ordinary least squares (OLS) regression of participation in formal and job-related non-formal adult learning on each of the variables listed in the leftmost column (i.e. a linear probability model). The results are for the OECD average. Column 1 contains the results of individual bivariate regressions with one single independent variable. Column 2 contains the full set of socio-demographic variables in a single multivariate model. Column 3 adds a variable for whether one is employed or unemployed (inactive adults are dropped from the sample). Column 4 includes variables on wages and the skill level of one's occupation (four categories); unemployed and inactive adults are dropped from the sample. Column 5 includes a control for one's industry of employment.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

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Notes

¹ Trend data for Cycle 1 refer to 2012 for all countries except for Chile, Israel, Lithuania, New Zealand, and Singapore (2015) and Hungary (2018). Data for Cycle 2 are for 2023. It should be noted that Cycle 2 data were collected during a period when countries were experiencing labour market fluctuations due to the COVID-19 pandemic.

² It should also be noted that the adult learning participation rate of younger adults may be over-estimated, due to the fact that the indicator cannot exclude those who are still completing their initial cycle of studies (see Chapter 1).

³ Moreover, the concept of ‘job-related training’ may be interpreted differently by employed and unemployed individuals, potentially affecting the comparability of results.

3

Why is participation not more common?

The most important motivation for adults to participate in adult learning is to improve their job performance or open new job opportunities. Adults who do participate in adult learning report that it was useful, and participation is associated with tangible benefits such as higher wages. Employer financial support for adult learning is commonplace and is a strong predictor of participation rates overall. Despite this, nearly a quarter of adults report barriers that prevent them from participating in adult learning; these barriers are more prevalent among women, younger adults, and more highly educated adults. The most commonly cited barrier is a lack of time, due to work and family responsibilities.

One in four adults experience barriers to training

- **Most adults participate in learning to improve their job performance and prospects.** This is the primary motivation for half of adult learners, and adults' motivations for participation have not changed significantly over the past 10 years.
- **Most adults find this learning to be valuable.** On average, 46% of adults find their non-formal job-related learning to be “very useful”, and another 31% report it was “moderately useful”. The rates at which people find learning to be useful have not changed significantly over the past decade.
- **Adults who participate in adult learning earn more.** Participation in learning is associated with 7% higher wages, even after controlling for age, gender, educational attainment, and occupational characteristics. This may represent both workers improved skills and knowledge, as well as the fact that more motivated and productive adults are more likely to participate in adult learning in the first place. Adult learning is not significantly associated with higher life satisfaction.
- **Around half of adults neither take part in nor show interest in participation in adult learning.** In addition to motivational barriers, this may reflect structural ones – such as limited opportunities, past exclusion, or learning opportunities that are misaligned with job needs.
- **Among those who do participate or want to, one in two face barriers to this participation.** The most common barriers are lack of time either due to family or work responsibilities (48%), the lack of suitable training opportunities (14%) and costs (13%).
- **Some groups are more likely than others to face barriers than others.** Women, younger adults, and more highly educated adults are most likely to report that they wanted to but faced barriers.
- **Employers have an important role to play in supporting adult learning.** The majority of adult learning takes place at the workplace, during working hours. Strong financial support from employers is one of the best predictors of participation in adult learning. Co-operation between policymakers and leaders within industry to provide high-quality, relevant adult learning activities may help ensure that employers see value in investing in these activities for their employees.
- **Adult learning can help employees to adapt to changing workplaces.** A slight majority of adults who report changes in their workplace over the past three years reported that their employers paid for training to help adapt to the change. Employer-supported training was most common for those experiencing changes related to information and communication technology (66%, on average).

Introduction

Adult learning plays a vital role in helping individuals navigate a world of rapid technological change, shifting labour markets, and evolving personal aspirations. Adults participate in learning activities for a multitude of reasons, and no single motivation appears to clearly account for differences in participation rates between countries. Nevertheless, adults who do participate in learning consistently report their training to be useful to them. Moreover, when adults do participate, the benefits are tangible – particularly in terms of wages. Despite this, nearly a quarter of adults across OECD countries report having encountered a barrier that prevented them from participating in a desired training activity over the past 12 months. These barriers are not distributed evenly, with gender, age, and educational attainment being

most notably associated with the propensity to encounter barriers. All of this leaves an important role for employers in supporting adult learning. The majority of adult learning activities take place at the workplace, during work hours, and receives at least some financial support from employers. Indeed, employer financial support is one of the strongest predictors of a country's overall adult learning participation rate.

This chapter explores the motivations behind adults' decision to participate in adult learning, the value they find in this learning, and the resulting benefits in terms of earnings and life satisfaction overall. It then describes the prevalence of different barriers that some adults face in accessing adult learning and analyses which socio-demographic groups are most impacted by these barriers. Lastly, it explores the ways in which employers can support adult learning for their employees.

Motivations and benefits of adult learning

Adults participate in adult learning for a range of reasons, including to achieve professional objectives, to renew or update their credentials, or simply to fulfil personal goals. In doing so, they can improve their skills, making them more productive employees and improving their earning potential. Participation in adult learning is associated with higher wages and with higher life satisfaction overall; however, it is likely that these effects are mediated through effects on educational attainment and occupation itself. This section explores the reasons adults cite for participating in adult learning and trends between cycles. It also provides evidence of the benefits of participating in adult learning, including economic and social rewards. It discusses to what extent adults apply their learnt skills directly at work or in new roles, demonstrating the practical value of learning.

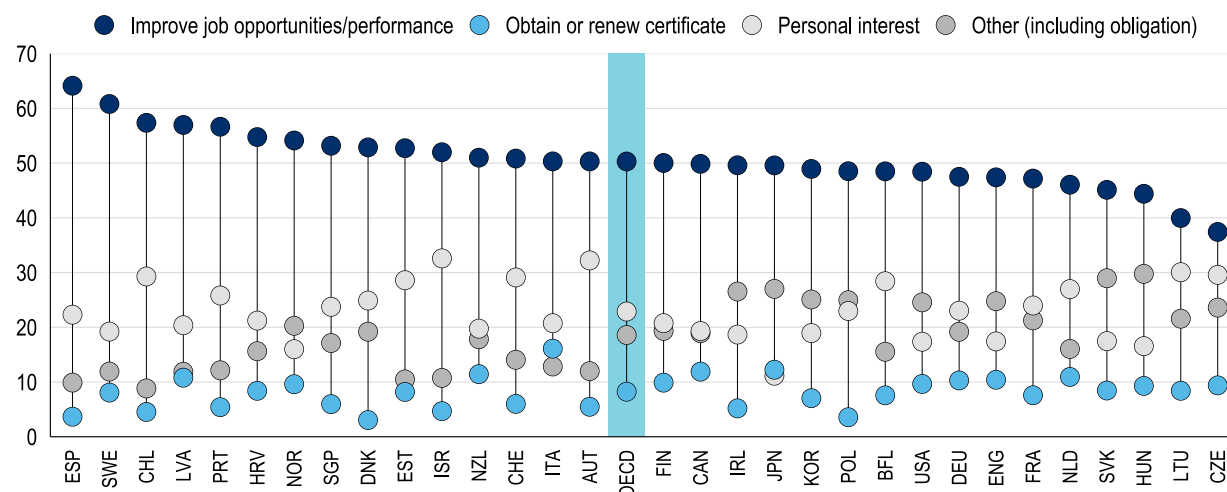
Most adults participate in learning to improve their career prospects

To improve one's job performance or to exploit new job opportunities was most frequently cited as the most important reason for participation in adult learning. On average across OECD countries and economies, about half of adults who participated in non-formal job-related adult learning cited this reason, and it was the most-cited reason in every country (Figure 3.1). The second most common reason was to satisfy a personal interest or curiosity. Given that these respondents also indicated that their learning activity was job-related, this would imply that these adults are following a personal interest in learning new skills that do have some importance for their job, even though they do not have a specific professional goal in mind.

The primary motivation for undertaking non-formal job-related adult learning has not changed significantly for most countries over the past ten years (Figure 3.2). The most pronounced overall change has been a five-percentage point increase in the likelihood of adults reporting obtaining or renewing a certificate as their primary motivation for undertaking adult learning. Other notable changes in individual countries include Norway, where improving job performance has become far more prevalent at the same time as pursuing personal interests has become less common, and Japan, where the share of adults citing training to improve job performance has declined by 17 percentage points. It is not obvious what drives these changes; they may be due to changes in individuals' own preferences, or changes in the types of trainings that are most likely to be subsidised or supported by employers.

Figure 3.1. The most commonly cited reason for adult learning is to improve job performance

Share of adults reporting a given primary reason for participating in learning, percentage

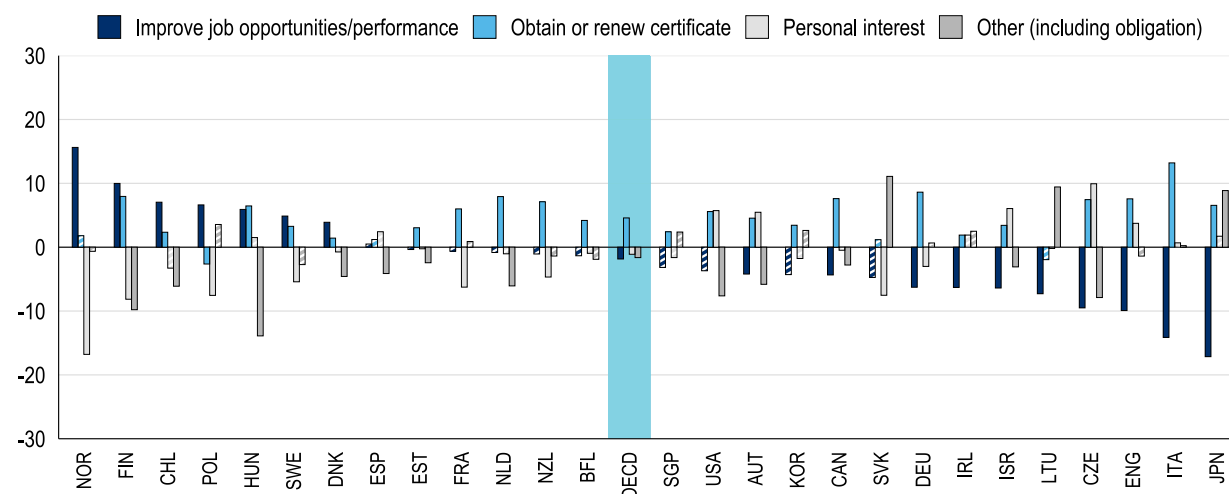


Note: Adults aged 25-65; non-formal job-related adult learning in the 12 months prior to the survey. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) Database (2023), www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Figure 3.2. Obtaining a certificate has become a somewhat more important motivation for training

Percentage point change in the share of adults reporting a given primary reason for participating in learning



Note: Adults aged 25-65; non-formal job-related adult learning in the 12 months prior to the survey. Results that are not statistically significant at the 5% level ($p > 0.05$) are shown in striped bars. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) Database (2012, 2015, 2018, 2023), www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Adult learning is a tool to help workers adapt to changing workplaces

Most adults complete formal training at a young age, before entering the workforce. Nevertheless, the skill and technical requirements of most workplaces will continue to evolve throughout people's working lives. Non-formal adult learning can be a useful means to help workers adapt to changes in their workplace by giving them familiarity with new tools and technologies and teaching them the skills to thrive and advance amid these shifts. One would expect that workplaces undergoing changes would rely on adult learning for precisely these reasons.

Nevertheless, there is a great deal of variation in the extent to which employers will pay for training to support employees who have undergone changes in their workplace. Among those who reported changes in the use of information and communication technologies over the past three years, for example, 85% or more of workers in Korea and Poland reported that their employer had paid for training to help adapt to some or all of the changes (Table 3.1). For Denmark, France, and Hungary, the share was less than half. On average across OECD countries and economies, 66% of workers who experienced changes in this domain were supported by training provided by their employer. Over the six types of workplace changes presented, between 54% of workers (Amount of contact with clients or customers) and 66% of workers (Information and communication technologies) received accompanying training activities, on average.

Table 3.1. Adults receive training to help adapt to changes in the workplace

Share of adults experiencing workplace changes who received employer-financed training, by type of change

	Information and communication technologies		Machinery		Working methods and practices		Outsourcing and relocation practices		Products or services		Amount of contact with clients or customers	
	Share	SE	Share	SE	Share	SE	Share	SE	Share	SE	Share	SE
POL	87	(1.6)	80	(2.1)	88	(1.3)	90	(3.4)	84	(1.2)	80	(1.7)
KOR	85	(2.0)	75	(2.9)	70	(2.6)	75	(2.7)	71	(2.3)	61	(2.2)
LVA	78	(1.5)	73	(1.5)	75	(1.2)	70	(2.8)	71	(1.6)	71	(1.6)
ITA	77	(2.3)	70	(2.6)	71	(2.4)	72	(6.2)	69	(2.5)	57	(2.9)
BFL	77	(1.4)	71	(2.3)	73	(1.4)	72	(2.7)	70	(1.8)	68	(2.0)
SGP	76	(1.4)	74	(2.4)	72	(1.3)	70	(1.9)	71	(1.2)	64	(1.5)
USA	75	(1.9)	73	(2.6)	71	(2.0)	71	(3.2)	71	(1.7)	64	(2.4)
SVK	73	(1.7)	67	(2.8)	70	(1.9)	49	(5.2)	64	(2.5)	61	(2.7)
ESP	73	(1.3)	69	(1.7)	70	(1.3)	71	(2.6)	67	(1.5)	66	(1.8)
IRL	73	(1.6)	73	(2.9)	73	(1.7)	69	(2.6)	69	(2.3)	65	(2.0)
NOR	72	(1.5)	74	(2.3)	68	(1.3)	67	(2.5)	69	(1.9)	62	(1.9)
AUT	71	(1.5)	71	(2.4)	71	(1.4)	74	(3.3)	65	(1.9)	58	(1.8)
FIN	68	(1.5)	66	(1.6)	64	(1.4)	63	(2.0)	63	(1.5)	55	(1.7)
HRV	68	(2.6)	57	(3.0)	70	(2.5)	51	(6.1)	66	(2.9)	54	(2.6)
NZL	67	(2.0)	63	(3.8)	64	(2.1)	64	(3.3)	66	(2.3)	58	(2.8)
CHE	67	(0.9)	64	(2.1)	66	(1.1)	62	(2.4)	63	(1.2)	55	(1.7)
CAN	66	(1.3)	62	(1.8)	66	(1.4)	65	(2.1)	63	(1.6)	57	(1.4)
ISR	66	(1.6)	62	(2.6)	63	(1.6)	51	(3.2)	57	(1.9)	54	(2.0)
ENG	66	(1.7)	71	(2.5)	62	(1.7)	64	(2.7)	61	(2.3)	54	(2.2)
SWE	65	(1.6)	60	(2.6)	61	(1.7)	59	(3.0)	60	(2.0)	54	(2.2)
CZE	64	(2.0)	57	(2.3)	62	(2.1)	53	(3.0)	55	(2.3)	53	(2.5)
JPN	62	(2.1)	50	(2.2)	46	(1.5)	47	(3.3)	49	(2.3)	41	(2.0)
EST	60	(1.3)	53	(1.3)	55	(1.4)	53	(2.1)	49	(1.4)	46	(1.3)
DEU	59	(1.5)	54	(2.2)	53	(1.6)	55	(2.5)	53	(1.9)	46	(1.9)
LTU	58	(2.3)	46	(1.9)	57	(1.8)	54	(2.8)	45	(2.1)	44	(1.9)
PRT	58	(2.3)	46	(3.1)	53	(3.0)	56	(4.1)	50	(3.0)	44	(2.4)
NLD	51	(1.7)	46	(3.2)	50	(1.9)	46	(2.5)	47	(2.1)	41	(2.1)
CHL	51	(2.1)	42	(2.6)	45	(1.5)	44	(4.3)	39	(2.1)	36	(2.4)
FRA	49	(1.2)	46	(1.8)	46	(1.3)	44	(2.4)	47	(1.6)	37	(1.7)
DNK	49	(1.7)	48	(2.6)	48	(1.6)	49	(2.6)	47	(1.9)	42	(2.2)
HUN	45	(1.7)	37	(1.8)	43	(1.9)	43	(3.1)	35	(1.7)	32	(1.9)
OECD	66	(1.9)	66	(1.9)	66	(1.9)	66	(1.9)	66	(1.9)	66	(1.9)

Note: Adults aged 25-65. Table reports the share, in percent, of adults whose employer paid for training activities for some or all of the workplace changes, by type of change, among those adults who responded positively to the question: "In the last three years, has your working environment significantly changed in any of the following areas?". Standard errors are reported in parentheses. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) Database (2023), www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Box 3.1. Digital upskilling and the changing nature of work

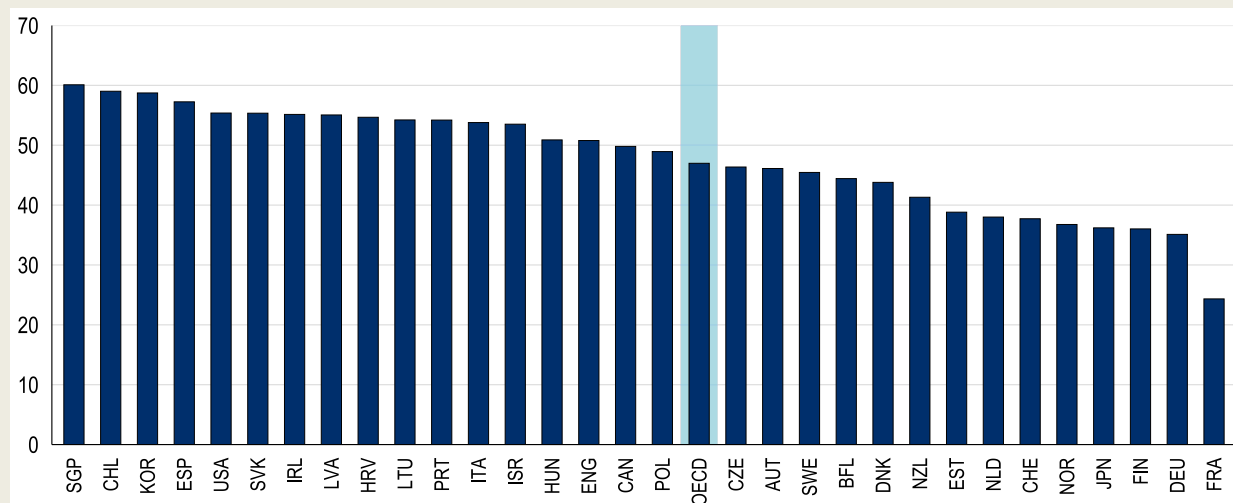
As technological advancements reshape industries, occupations, and tasks, the demand for digital competencies – from basic digital literacy to more advanced ICT skills – has surged. Improving workers' ability to use digital tools and navigate digital processes at work via digital upskilling is a crucial component in helping workers adapt to the changes in their work environments. Many roles will increasingly involve at least some component of digital literacy, or the ability to manage and understand the workflow of other employees who have a more specialised digital skill set. There is already evidence of an increase in demand for technicians, data entry clerks, human resources managers, and marketing specialists with whose requisite skills are highly digital: for example, data management, online marketing, web analytics, and quality assurance (OECD, 2022^[2]).

On average, just under half of non-formal job-related adult learning activities include some element wherein participants learn how to better use computerised equipment or navigate digitally supported processes. Singapore has the highest share of such activities, with 60% of trainings involving the use of digital equipment and knowledge. On the other hand, France stands out as the only country where less than 30% of trainings involve such content. There is a loose negative correlation between overall participation rates (Figure 1.1) and the share of trainings making use of digital equipment.

With workplaces continuing to evolve, it will be increasingly important to ensure that training is available to help ensure workers can develop the necessary facility with new digital technologies. This will in turn help workers to slot into the new and changing roles that will emerge as digital technologies become increasingly integrated into workplaces.

Figure 3.3. Nearly half of trainings cover how to use digital equipment and knowledge at work

Share of trainings involving learning how to better use computerised equipment or digitally supported processes, percentage



Note: Adults aged 25-65; non-formal job-related adult learning in the 12 months prior to the survey. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

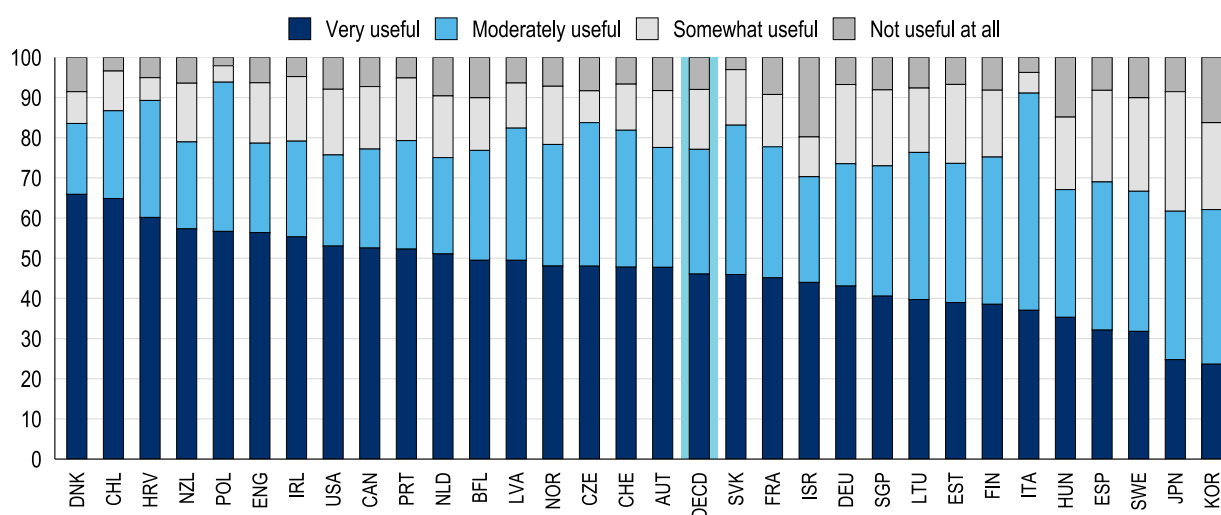
Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) Database (2023), www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Most adult learners find their training activities to be valuable

In order for participation in adult learning to lead to positive outcomes, participants must first and foremost find their training useful. On average across participating OECD countries and economies, 46% of adults who participated in non-formal job-related learning activities reported that their training was “very useful” (Figure 3.4) and another 31% reported that the training was “moderately” useful to them. Conversely, less than 10% of adults reported that their training was “not useful at all”. Adults in Denmark, Chile and Croatia were most likely (60% or more) to report their training as very useful, whereas 25% of adults or less found this to be the case in Japan and Korea. In Hungary, Israel, and Korea, 15% of adults or more found their training to be not at all useful.

Figure 3.4. Trainings are generally valued by those who participate

Share of non-formal job-related learning activities by usefulness to participant, percentage



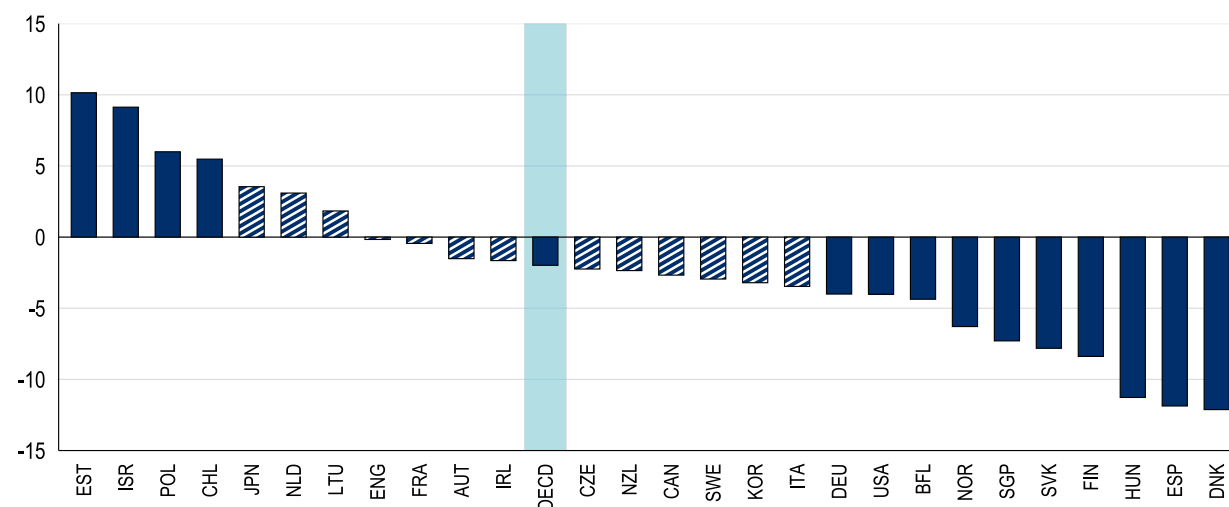
Note: Adults aged 25-65; non-formal job-related adult learning in the 12 months prior to the survey. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) Database (2023), www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported in the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

For the OECD on average, there has been comparatively little change since Cycle 1 in the relative usefulness of non-formal job-related adult learning, with the share of adults who reported their training to be “very useful” falling by just 2 percentage points (Figure 3.5). However, this conceals the fact that for four countries (Chile, Estonia, Israel and Poland), there were significant increases in this share of adults, whereas for ten countries the share of adults actually decreased. For Denmark, Hungary and Spain, the decrease was greater than 10 percentage points.

Figure 3.5. Adult learning has maintained its usefulness over time

Percentage point change in share of adults who reported non-formal job-related adult learning to be “very useful”



Note: Adults aged 25-65; non-formal job-related adult learning in the 12 months prior to the survey. Results that are not statistically significant at the 5% level ($p > 0.05$) are shown in striped bars. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) Database (2012, 2015, 2018, 2023), www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Social and economic returns to training

Adult learning offers adults the opportunity to improve their skills and job prospects, to move into better paid jobs and to become more productive (Albert, Garcia-Serrano and Hernanz, 2010^[3]) (Bassanini et al., 2005^[4]) (Fialho, Quintini and Vandeweyer, 2019^[5]). It also provides an opportunity to satisfy one's own curiosity by acquiring new knowledge; indeed, 23% of adults participating in non-formal adult learning for work say that they do so to satisfy their own personal interest (Figure 3.1). While there is evidence of a relationship between participation in adult learning and adults' earnings, adult learning is not associated with greater overall life satisfaction.

Table 3.2 presents the results of a series of regressions of log wages on participation in adult learning and several other variables. At first sight, participation in adult learning is associated with 17% higher wages (column 1); even after controlling for socio-demographic characteristics, educational attainment, sector of employment and job skill requirements, participation is still associated with 7% higher wages (model 6).

While this positive association suggests that individuals who participate in adult learning may be more likely to earn higher wages, causality cannot be assumed. It is possible that adult learning helps individuals to acquire new skills and knowledge that contribute to better paid jobs. However, it could also be the case that individuals who are already in higher paid jobs – or those who are more motivated, career oriented or have stronger cognitive or social skills – are also more likely to participate in adult learning. In other words, the relationship may reflect both the potential benefits of learning and the characteristics of those who are more likely to participate. Other variables such as educational attainment, age, occupational skills and gender also show consistent associations with earnings.

Participation in non-formal job-related adult learning is associated with higher life satisfaction, but this association is largely due to observable factors other than the training itself. In a simple bivariate regression, adults who had participated in adult learning in the previous 12 months were 10% more likely

to report high life satisfaction than those who had not (Table 3.3). However, this effect disappears when other socio-demographic variables are included in the regression model (models 2 and 3). The inclusion of additional control variables, such as whether or not one is employed or how much one earns, eliminates much of the association between education and life satisfaction. The most consistent predictors of high life satisfaction, on the other hand, are whether one lives with a partner or alone, whether one is employed or not, and how much one earns. The initial association between training and satisfaction can be explained by the fact that adults who live with a partner, are employed and have higher earnings are more likely to participate in adult learning in the first place.

Table 3.2. Relationship between participation in adult learning and earnings

Regression estimates for the effect of adult learning on log wages

	Single regressor	Socio-demographic characteristics		Occupational skill and industry of employment		
	(1)	(2)	(3)	(4)	(5)	(6)
Participation in non-formal job-related adult learning	17.1** (0.00)	10.3** (0.00)	10.4** (0.00)	7.5** (0.00)	9.8** (0.00)	7.4** (0.00)
Individual characteristics						
Age group: 55-65 (ref. 25-34)	2.4** (0.00)	8.4** (0.00)	8.4** (0.00)	8.3** (0.00)	9.3** (0.00)	9.2** (0.00)
Woman	-12.7** (0.00)	-15.4** (0.00)	-15.3** (0.00)	-14.3** (0.00)	-12.4** (0.00)	-11.5** (0.00)
Has children	3.0** (0.00)	2.0** (0.00)	2.3** (0.00)			
Lives alone	-8.8** (0.00)	-6.4** (0.00)	-6.4** (0.00)	-5.3** (0.00)	-6.1** (0.00)	-5.1** (0.00)
Native-born	8.0** (0.00)	7.5** (0.00)	7.6** (0.00)			
Parental education: tertiary (ref. below upper secondary)	18.5** (0.00)	9.0** (0.00)	9.0** (0.00)	5.4** (0.00)	8.1** (0.00)	5.3** (0.00)
Mother (Woman*Has children)	-4.2** (0.00)		-0.8 (0.44)			
Educational attainment and skills						
Tertiary education (ref. below upper secondary)	34.9** (0.00)	35.1** (0.00)	35.1** (0.00)	21.8** (0.00)	31.9** (0.00)	20.7** (0.00)
Literacy proficiency: Level 4 (ref. Level 1 and below)	36.4** (0.00)					
Occupational characteristics						
Occupational skill: Elementary occupations (ref. skilled occupations)	-45.9** (0.00)			-33.7** (0.00)		-31.7** (0.00)
Industry controls (Y/N)		N	N	N	Y	Y
R squared		0.22	0.22	0.28	0.27	0.33

Note: Table summarises the statistical effect of each variable on log wages; each estimate therefore can be understood as the percentage change in wages associated with each variable. Participation in adult learning refers to non-formal job-related adult learning over the past 12 months. Estimates are for the average of participating OECD countries. P values are reported in parentheses. Stars denote statistical significance at the 1% (**) and 5% (*) level.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) Database (2023), www.oecd.org/en/about/programmes/piaac/piaac-data.html.

Table 3.3. Relationship between participation in adult learning and reported life satisfaction

Regression estimates for the effect of adult learning on the probability of reporting high life satisfaction

	Single regressor	Socio-demographic characteristics		Employment status	Wages
	(1)	(2)	(3)	(4)	(5)
Participation in non-formal job-related adult learning	9.7** (0.00)	6.0** (0.00)	5.9** (0.00)	4.0** (0.00)	3.0** (0.00)
Individual characteristics					
Age group: 55-65 (ref. 25-34)	-2.5** (0.00)	-2.8** (0.00)	-2.8** (0.00)	-1.8** (0.00)	-2.8** (0.00)
Woman	0.5 (0.08)	0.1 (0.63)	0.2 (0.56)	0.3 (0.33)	1.8** (0.00)
Has children	3.6** (0.00)	0.0 (0.94)	0.2 (0.80)		
Lives alone	-16.0** (0.00)	-15.8** (0.00)	-15.8** (0.00)	-13.5** (0.00)	-12.6** (0.00)
Native-born	2.4** (0.01)	2.3** (0.01)	2.3** (0.01)		
Parental education: tertiary (ref. below upper secondary)	6.3** (0.00)	1.6** (0.00)	1.5** (0.00)	1.0* (0.04)	0.0 (1.00)
Mother (Woman*Has children)	3.4** (0.00)		-0.3 (0.72)		
Educational attainment and skills					
Tertiary education (ref. below upper secondary)	15.4** (0.00)	13.3** (0.00)	13.3** (0.00)	9.3** (0.00)	4.6** (0.00)
Occupational characteristics					
Being employed (ref. unemployed)	24.0** (0.00)			20.5** (0.00)	
Wages (log)	12.3** (0.00)				9.9** (0.00)
Occupational skill: Elementary occupations (ref. skilled occupations)	-16.2** (0.00)				
R squared		0.07	0.07	0.07	0.06

Note: Table summarises the statistical effect of each variable on the probability, in percent, of reporting high life satisfaction. High life satisfaction is defined as responding 7 or higher to the question, "All things considered, how satisfied are you with your life as a whole these days?", with 0 defined as "extremely dissatisfied" and 10 defined as "extremely satisfied". Participation refers to non-formal job-related adult learning over the past 12 months, using a linear probability model (OLS). Estimates are for the average of participating OECD countries. P values are reported in parentheses. Stars denote statistical significance at the 1% (**) and 5% (*) level.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) Database (2023), www.oecd.org/en/about/programmes/piaac/piaac-data.html.

Barriers to participation in adult learning

Approximately half of all adults neither participate in nor express interest in participation in adult learning. While this may appear to reflect a lack of motivation, such disengagement often stems from deeper structural factors. Limited availability of relevant learning opportunities, past exclusion from education systems, and training perceived as disconnected from labour market needs can undermine both interest and confidence. These barriers reduce not only access but also expectations and the perceived value of participation.

One in four adults say that they would have liked to participate in (more) learning, but have been prevented from participating by some barrier or another. These barriers vary in nature; they may emerge because adult learning takes place at an unfavourable time or location, because learning may be too expensive, or adults may have to prioritise other responsibilities – to family or to work – that leave them little time for adult learning. Moreover, these barriers are not distributed uniformly throughout the population; some socio-demographic groups face higher incidences of these barriers than others. This section examines the reasons adults cite for not participating in adult learning, and how these have evolved over time. It also analyses to what extent these reasons differ between socio-demographic groups.

Owing to the design of the questions on barriers to learning in the 2023 Survey of Adult Skills, the sample is restricted to participation in non-formal (job-related) adult learning.

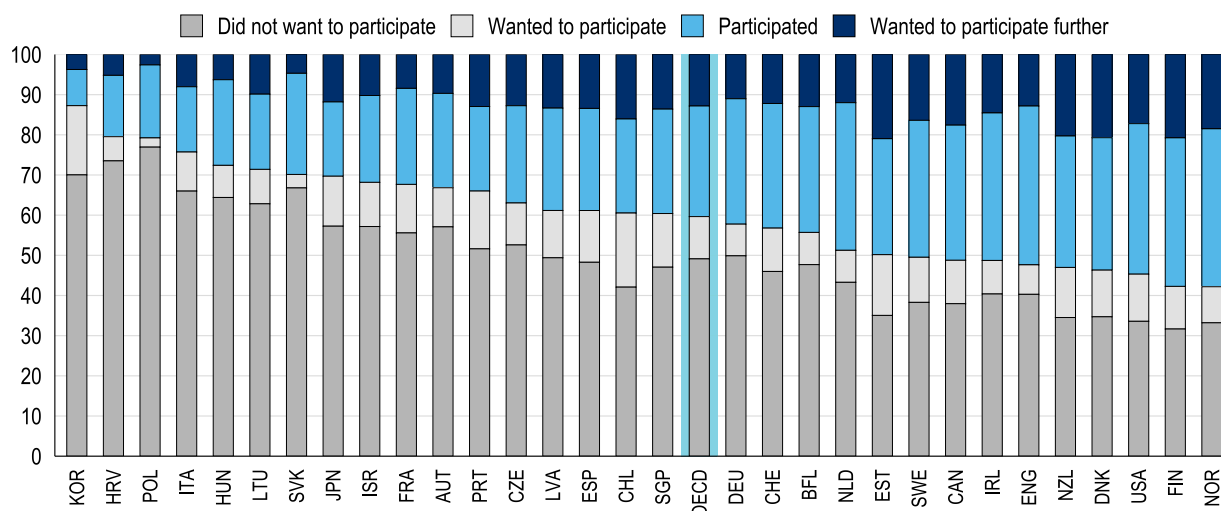
One in four adults report face barriers to adult learning

A sizeable minority of adults would like to participate in (more) adult learning but are unable to do so. Figure 3.6 shows the proportion of adults who experienced barriers to participation in adult learning. On average, 60% of adults have not participated in non-formal job-related learning activities over the past 12 months, of whom 11% reported that they would have liked to participate in a training activity (light grey bar). This implies that one in two adults did not participate in learning, neither did they have the desire to.

Furthermore, of the remaining 40% who did participate in training, 13% of these adults would have liked to participate in additional adult learning activities. Altogether, this means that 24% of adults encountered some barrier to participate in (more) adult learning.

Figure 3.6. A quarter of adults in OECD countries face some barriers to adult learning

Share of adults reporting barriers to participation in adult learning by participation status, percentage



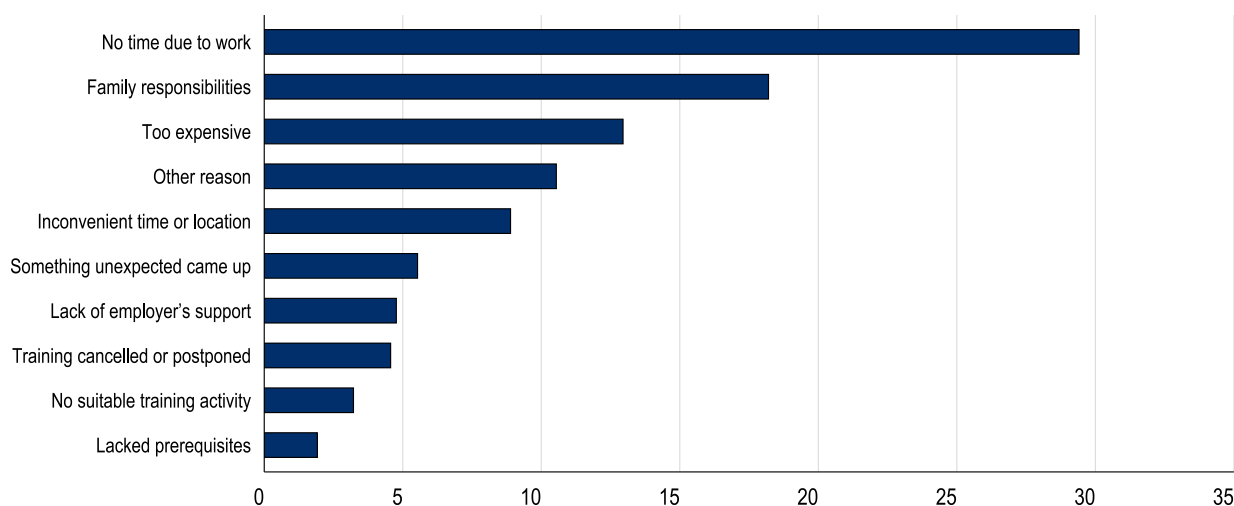
Note: Adults aged 25-65. Adults who reported barriers are plotted under: “wanted to participate” and “wanted to participate further”. Adults who “did not want to participate” did not report any barriers, nor did adults plotted under “participated”. OECD is an unweighted average of all participating member countries.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) Database (2023), www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Increasing participation in adult learning requires an understanding of the nature of the barriers to learning faced by adults. By far the most common barrier to participation in non-formal job-related learning is lack of time (Figure 3.7). For almost half of adults (48%) who experience barriers to participation in adult learning, time constraints due to work or family responsibilities are the most important barrier to training, on average across the participating OECD countries and economies. Cost is the third most common barrier (13%). Reasons related to the availability of relevant training activities, such as suitability of training, necessary prerequisites, or taking place at an accessible time or place, are cited by a total of 14% of adults. Unexpected barriers or the cancellation or postponement of training accounts for a further 10% of barriers.

Figure 3.7. Reasons preventing adults from participating in adult learning

Average share of adults citing the following barrier as their main reason for not participating in learning, percentage



Note: Adults aged 25-65; Figure plots the average share of adults citing each given barrier to participation among those who reported being unable to participate in a desired training over the past 12 months. Respondents were asked to choose the single most important reason that prevented them from participating from a pre-defined list of potential barriers. OECD is an unweighted average of all participating member countries.

Source: OECD (n.d.[1]), Survey of Adult Skills (PIAAC) Database (2023), www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

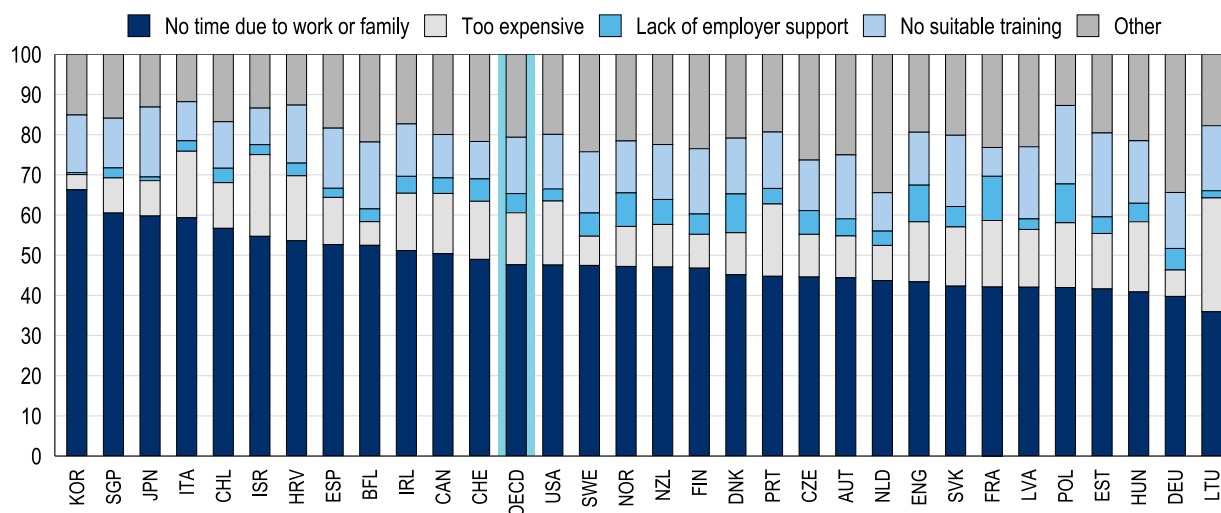
Figure 3.8 again shows that lack of time due to work or family responsibilities is by far the most commonly cited barrier to adult learning in OECD countries, accounting for the majority of responses in almost every country. This issue is particularly pronounced in Italy, Japan, Korea and Singapore, where 60% of adults or more cite time constraints as a major barrier. Other barriers – such as high costs, lack of employer support and lack of suitable training opportunities – vary significantly between countries. For example, financial barriers are most prominent in Italy, Hungary, Lithuania and Portugal. Meanwhile, a lack of suitable training is more frequently cited in countries such as Estonia, Latvia, Poland or the Slovak Republic. These patterns underline the need for broad-based policy responses – from extending training leave and childcare availability to improving course availability and financial support – to address country-specific challenges and increase participation rates in lifelong learning.

The most common barriers to adult learning have not changed over the past decade (Figure 3.9). Despite differences in the estimated shares of adults who flag time constraints, costs, or other barriers to adult learning between Cycle 1 and Cycle 2, for most countries there are no statistically significant changes in the relative importance of certain barriers. This raises questions about the effectiveness of policies, which have aimed to address these barriers in the past decade.

On average across OECD countries, the tendency has been for time constraints or unexpected impediments – such as last-minute cancellations – to become relatively more prevalent, but these changes are not very severe. Notable exceptions are in Chile and France, where there is statistically significant evidence that time constraints became relatively more prevalent than other types of barriers.

Figure 3.8. Reasons preventing adults from participating in adult learning, by country

Average share of adults who reported each given barrier to training, percentage

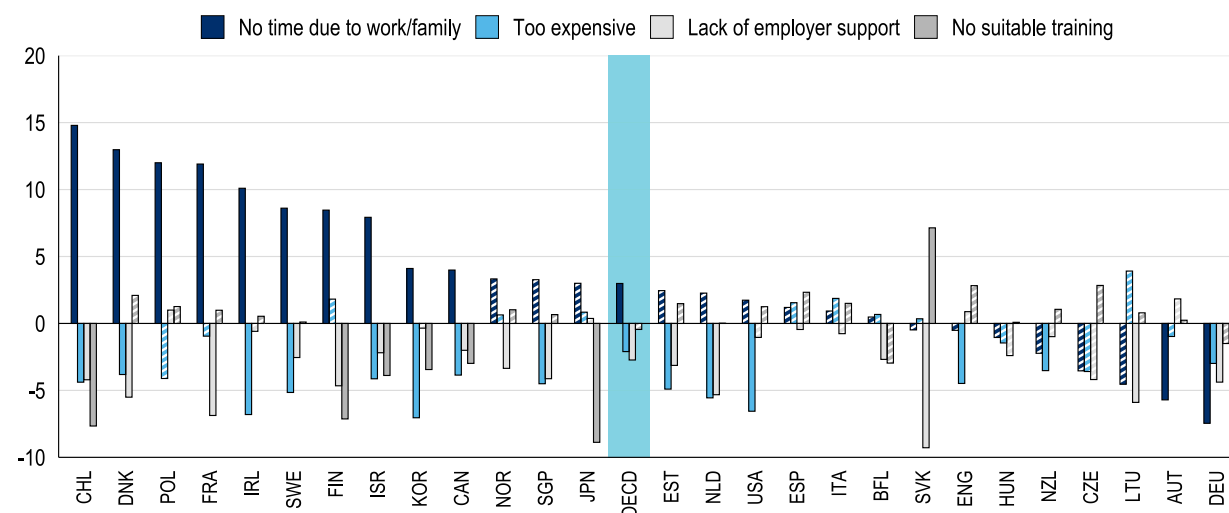


Note: Adults aged 25-65. Figure plots the average share of adults citing each given barrier to participation, among those who reported being unable to participate in a desired training over the past 12 months. Respondents were asked to list the single most important reason why they were prevented from participating. Some categories combine multiple responses: "No time due to work or family" includes adults who responded yes to either "I had no time due to family responsibilities" or "I had no time due to work-related reasons". "No suitable training" combines "I did not find any suitable training activity", "I did not have the prerequisites", and "Training activity took place at an inconvenient time or location". "Other" combines "Training activity was cancelled or postponed", "Something unexpected came up that prevented me from participating", and "Other reason". Figure 3.7 plots all possible responses. OECD is an unweighted average of all participating member countries.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) Database (2012, 2015, 2018, 2023), www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Figure 3.9. Barriers to adult learning have barely changed since the last PIAAC Cycle

Percentage point change in share of adults reporting they were unable to participate in training, by reason



Note: Adults aged 25-65. Figure plots the average share of adults citing each given barrier to participation, among those who reported being unable to participate in a desired training over the past 12 months. Respondents were asked to list the single most important reason why they were prevented from participating. Some categories combine multiple responses: “No time due to work or family” includes adults who responded yes to either “I had no time due to family responsibilities” or “I had no time due to work-related reasons”. “No suitable training” combines “I did not find any suitable training activity”, “I did not have the prerequisites”, and “Training activity took place at an inconvenient time or location”. “Other” combines “Training activity was cancelled or postponed”, “Something unexpected came up that prevented me from participating”, and “Other reason”. Figure 3.7 plots all possible responses. Results that are not statistically significant at the 5% level ($p > 0.05$) are shown in striped bars. OECD is an unweighted average of all participating member countries.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) Database (2012, 2015, 2018, 2023), www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Barriers to adult learning follow similar patterns to participation overall

Barriers to adult learning are recorded for people who reported that they wanted to participate but were unable to do so. This is an important qualification: around one in two adults seem to have no desire participate in adult learning. These individuals are fundamentally different from those who wanted to learn but encountered barriers – whether logistical, financial or related to time. Consequently, the reported barriers largely reflect the experiences of a self-selecting group of motivated learners, and therefore largely follow the overall participation patterns. While addressing their barriers is essential to making adult learning more equitable and accessible to motivated learners, wider participation gaps are also shaped by the motivation or perceived need to engage in learning in the first place.

Still, even among those who do want to participate, certain groups are more likely to encounter obstacles. Figure 3.10 shows raw gaps in reported barriers by gender, education, and age across countries, while regression results in Table 4.4 provide a more detailed regression analysis that accounts for additional characteristics and provides a more nuanced picture of the prevalence of barriers across various groups.

On average, women are 7 percentage points more likely than men to report barriers to learning, with 27% of women reporting barriers, compared to 20% of men (Figure 3.10, Panel A). Indeed, this gap is only partly mitigated by other factors such as educational attainment or one’s sector of employment (see Table 3.4). Even when accounting for occupational, educational, and socio-demographic characteristics, women are about 5 percentage points more likely than men to encounter barriers to participation. The

greatest gaps are in Estonia, Finland, Korea, and Lithuania, where gaps are 12 percentage points or higher.

There are pronounced gaps in the average likelihood of reporting barriers to participation between adults with different educational attainment (Figure 3.10, Panel B). Those with a tertiary degree are the most likely, with 30% on average reporting barriers. The rates for those without tertiary education are closer, at 20% for those with upper secondary and 15% for those who have not completed upper secondary. Because adults with below upper secondary education are half as likely as tertiary-educated adults to report barriers, but they are only a third as likely to participate in training, this means that, in fact, the burden of barriers falls disproportionately upon the least-educated adults.

Finally, young adults are most likely to report barriers to non-formal job-related learning (Figure 3.10, Panel C). Though participation and reported barriers are both highest, on average, for those aged 25-34, adults aged 25-54 are nearly as likely to report that they encounter barriers to learning (28% and 25%, respectively). This is likely due to the constraints faced by early-career workers who may also be in the process of raising young children.

Age, gender, and education are the best predictors of barriers to learning

Table 3.4 summarises the results of various regression models that regress the probability of reporting a barrier to participating in non-formal job-related adult learning on various socio-demographic, educational, and occupational characteristics. The leftmost column (1) summarises the results of bivariate regressions. This is the simple association between a given variable and the likelihood of reporting barriers to adult learning, without any other control variables. Columns (2) through (7) present the results of different model specifications. As noted above, because an individual must have the desire to participate in an adult learning activity in order to report a barrier in the first place, the patterns of barriers to learning resemble the overall participation patterns to some extent (see Chapter 2, Table 2.1).

Age and gender are consistently associated with the probability of encountering barriers to participation in adult learning. Older adults are less likely to report such barriers, and women are more likely to do so. Though, intuitively, the strongest effects appear in bivariate regressions, the effects are quite consistent even as additional control variables are added to the model. Adults in the oldest age group are consistently between 8% and 9% less likely than adults in the youngest group to report barriers to adult learning, and similarly women are between 5% and 7% more likely than men. Additional socio-demographic variables – whether one has children, lives alone or with a partner, is native-born – do not have strong associations with the probability of reporting barriers to adult learning, even before the inclusion of control variables. Once control variables are included in the regression model, motherhood (an interaction variable) is no longer statistically significantly associated with the likelihood of reporting barriers either (model 3). Because of this, these variables are excluded from models 4-7.

Parental education is an interesting case, in that its raw effect on the probability of encountering barriers is quite strong, at 13% (column 1), but this effect diminishes as successive variables are included in the model. Once these characteristics are also included, the size of the estimated effect of parental education on the probability of encountering barriers to adult learning diminishes substantially. This suggests that a large part of the effect parental education is, in fact, mediated through other variables such as educational attainment and where one works.

Adults who have completed tertiary education are between 8% and 12% more likely than adults who have not completed upper secondary to report barriers to adult learning, even with the inclusion of various control variables (2-7). The estimated effect is smallest when literacy proficiency is also included in the model; this is not surprising, given that educational attainment and skill proficiency are closely correlated. Despite this correlation, model 5 shows that attainment and literacy proficiency each have independent and statistically significant associations with a higher likelihood of encountering barriers. Nevertheless, due to their

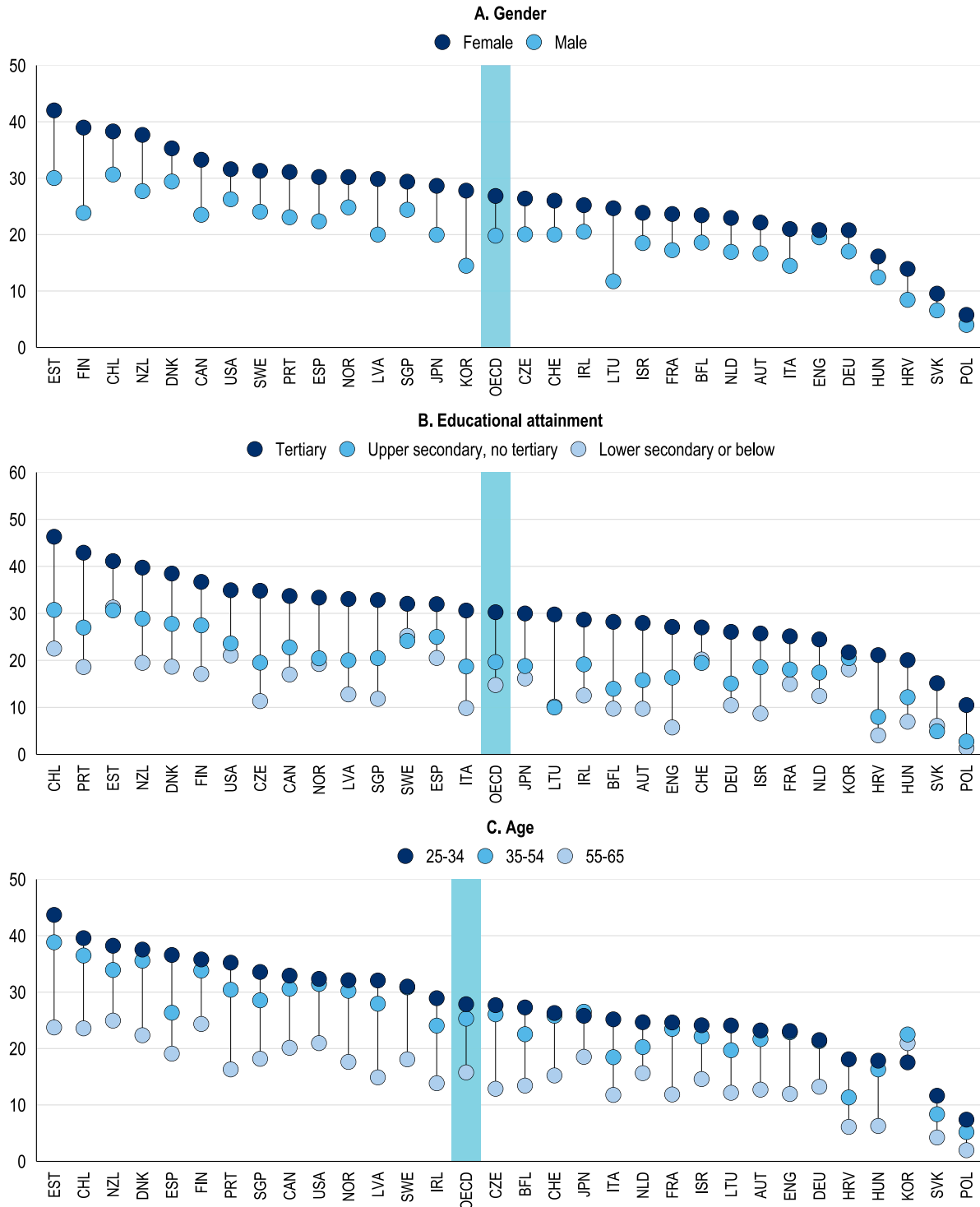
similarity and because including both variables does not substantially affect the magnitude of other estimates, models 6 and 7 include only educational attainment.

Wages and occupational skill requirements are associated with barriers to adult learning when all other variables are excluded: the magnitude of the effect and its statistical significance erodes in models 6 and 7. However, including controls for wages, occupational skill, and industry does not change the estimated effects for other variables, with the exception of parental education (as noted above).

Overall, educational attainment has consistently the strongest effect on the likelihood of encountering barriers when controlling for other variables, followed by age and gender. Most other variables are not clearly associated with encountering barriers. It should also be understood that the R squared statistic on all models presented above does not exceed 0.06, meaning that the majority of variance in whether adults encounter barriers to adult learning is attributable to factors other than the broad categories presented in Table 3.4.

Figure 3.10. Barriers are most common for women, the highly educated, and younger adults

Share of adults reporting having encountered a barrier to participation over the past 12 months, percentage



Note: Adults aged 25-65; non-formal job-related adult learning in the 12 months prior to the survey. OECD is an unweighted average of all participating member countries.

Source: OECD (n.d.^[11]), Survey of Adult Skills (PIAAC) Database (2023), www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Table 3.4. Predictors of encountering barriers to participation

Estimated effect on probability of reporting barriers to adult learning

	Single regressor	Socio-demographic characteristics		Educational attainment and skills		Wages and occupation	Wages and industry
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Individual characteristics							
Age group: 55-65 (ref. 25-34)	-12.1** (0.00)	-8.6** (0.00)	-8.6** (0.00)	-9.0** (0.00)	-7.8** (0.00)	-7.8** (0.00)	-8.4** (0.00)
Woman	7.0** (0.00)	6.5** (0.00)	6.6** (0.00)	6.5** (0.00)	6.6** (0.00)	6.5** (0.00)	5.2** (0.00)
Has children	4.4** (0.00)	0.2 (0.72)	0.3 (0.69)				
Lives alone	0.2 (0.46)	0.5 (0.15)	0.4 (0.16)				
Native-born	-2.8** (0.00)	-1.8** (0.00)	-1.7** (0.00)				
Parental education: tertiary (ref. below upper secondary)	12.8** (0.00)	5.9** (0.00)	5.9** (0.00)	5.9** (0.00)	4.6** (0.00)	5.0** (0.00)	5.2** (0.00)
Mother (Woman*Has children)	8.2** (0.00)		-0.3 (0.76)				
Educational and skills							
Tertiary education (ref. below upper secondary)	15.5** (0.00)	11.4** (0.00)	11.5** (0.00)	11.3** (0.00)	8.4** (0.00)	9.3** (0.00)	10.1** (0.00)
Literacy proficiency: Level 4 (ref. Level 1 and below)	19.1** (0.00)				10.9** (0.00)		
Occupational characteristics							
Wages (log)	5.9** (0.00)					0.6 (0.27)	2.5** (0.00)
Occupational skill: Elementary (ref. skilled occupations)	-12.1** (0.00)					-6.6** (0.00)	
Industry controls (Y/N)		N	N	N	N	N	Y
R squared		0.05	0.05	0.05	0.05	0.05	0.06

Note: Table summarises the statistical effect of each variable on the probability, in percent, of reporting barriers to participation in non-formal job-related adult learning over the past 12 months, using a linear probability model (OLS). Estimates are for the average of participating OECD countries. P values are reported in parentheses. Stars denote statistical significance at the 1% (**) and 5% (*) level.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) Database (2023), www.oecd.org/en/about/programmes/piaac/piaac-data.html.

The role of employers in supporting adult learning

There are costs associated with the provision of and participation in adult learning. These costs may be borne by, or shared between, different actors: employers, trade unions, civil society organisations, public employment services, or individuals themselves. Indeed, cost is the third most frequently cited barrier to participation in adult learning. Together with a lack of support from employers, these barriers prevented 18% of adults from participating in a desired adult learning activity in the last 12 months (Figure 3.7). This section analyses the prevalence and trends in employer-sponsored training.

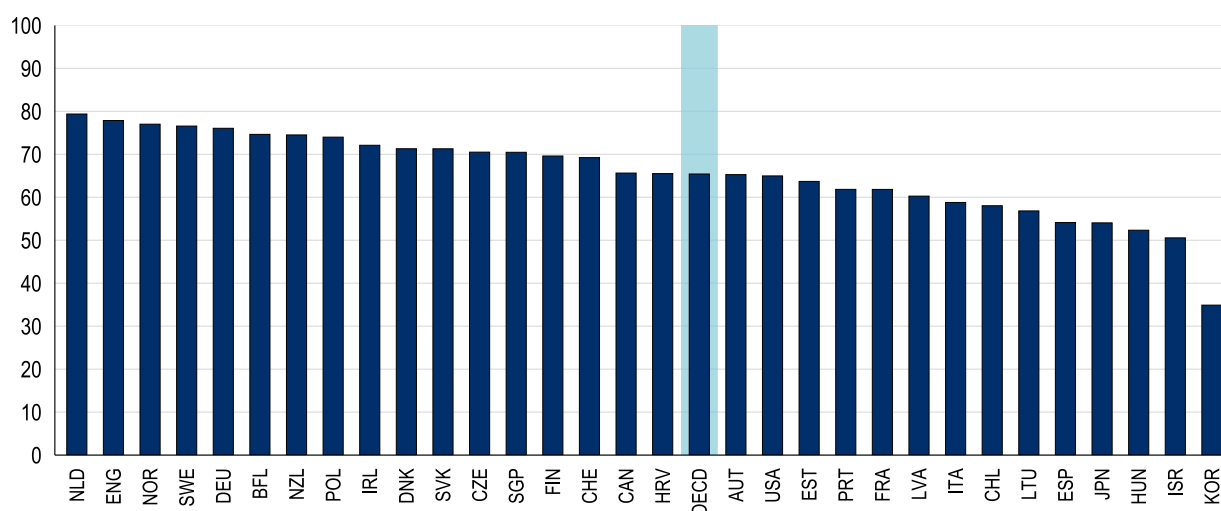
On average across the participating OECD countries and economies, 65% of adults participating in non-formal work-based adult learning reported that they received at least partial financial support from their employer (Figure 3.11). This share rises to almost 80% in the Netherlands, while in Korea only 35% of training was supported in this way. Strong financial support from employers is consistently associated with

higher overall participation in adult learning (Figure 3.12).¹ Indeed, employer financial support for adult learning is one of the strongest predictors of a country's overall participation rate: a ten percentage point increase in the share of adults with employer financial support is associated with a seven percentage point increase in the country's overall participation rate. It should be noted that adults may not always be conscious of the cost of employer provided training, in particular when it is provided in the workplace.

The lesson for policymakers is that while lack of employer support may not be the most commonly cited barrier to participation by adults themselves, there is strong evidence that employer support can have a powerful effect in increasing participation. Collaboration between policymakers and employers to provide high quality, relevant adult learning can help ensure that employers see the value in investing in these activities for their employees.

Figure 3.11. Two-thirds of trainings are supported financially by employers, on average

Share of non-formal job-related training where participant receives financial support from employer, percentage

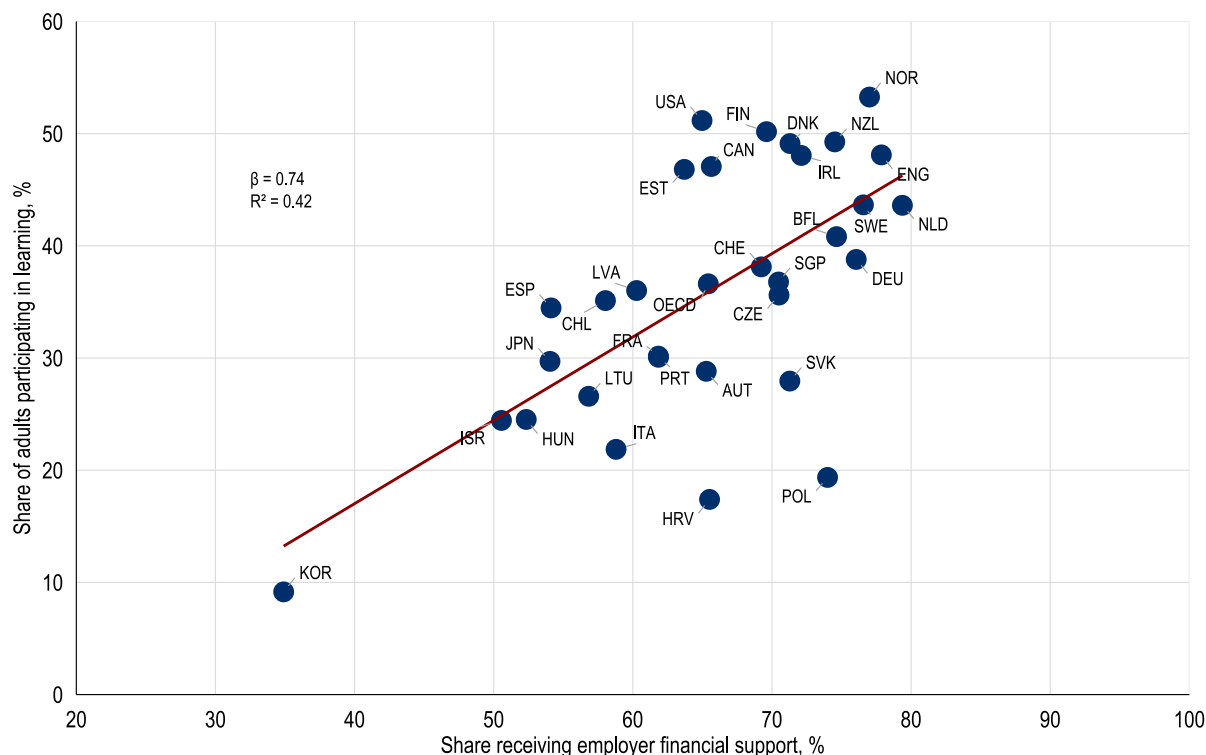


Note: Adults aged 25-65; non-formal job-related adult learning in the 12 months prior to the survey. Employer financial support is defined as the employer covering some or all of the expenses for learning, including tuition fees, expenses for books and travel costs. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) Database (2023), www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

Figure 3.12. Employer financial support is associated with higher overall participation

Relationship between employer financial support for adult learning and overall participation rates



Note: Adults aged 25-65; non-formal job-related adult learning in the 12 months prior to the survey. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) Database (2023), www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

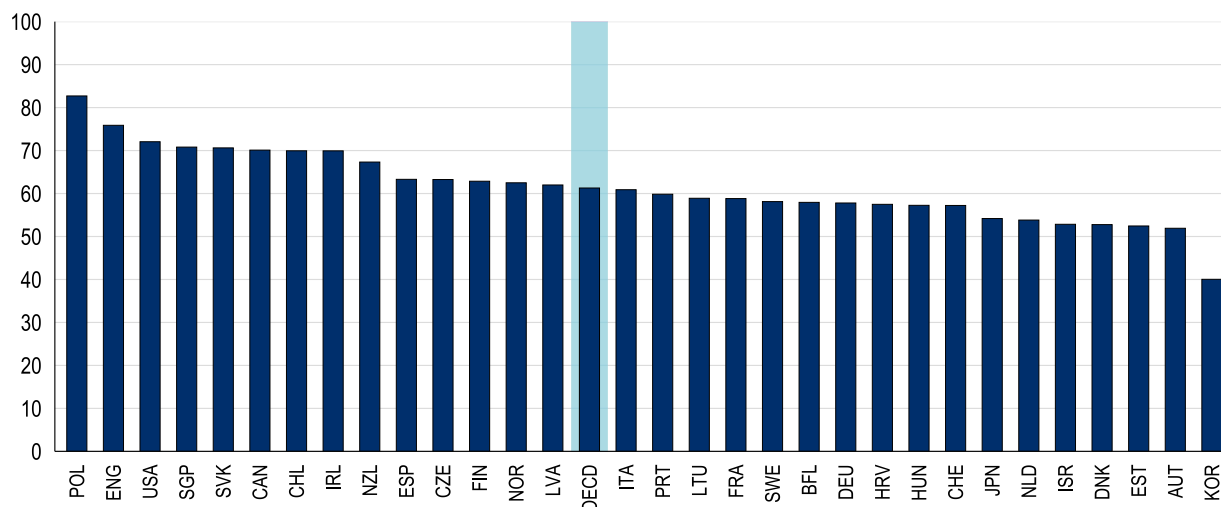
Most adult learning takes place while adults are at work

The workplace is the main place where non-formal job-related learning takes place. Across OECD countries, 61% of non-formal job-related learning activities take place in the normal working environment and 74% during paid working hours (Figure 3.13). These figures suggest that the workplace plays a central role in facilitating opportunities for adults to improve their skills, although this reliance on workplace learning also raises important questions about the accessibility of non-formal learning to those who are not in employment.

There are notable differences in the role of the workplace in non-formal job-related learning across countries. In Poland and England (United Kingdom), for example, the workplace is the most common setting for non-formal learning, accounting for 83% and 75% of activities respectively. At the other end of the spectrum, Korea stands out as the only country where less than half of non-formal learners report taking part in such activities in their normal working environment. Similar patterns emerge for training during paid working hours (Figure 3.14, Panel A), with Korea again reporting the lowest levels, followed by Israel and Spain, where just over half of non-formal learning takes place during paid working hours. In contrast, countries such as France and Denmark integrate non-formal learning almost entirely into paid working time, with shares of 92% and 88% respectively, suggesting a systemic commitment to skills development in the workplace.

Figure 3.13. The workplace is the primary place for learning

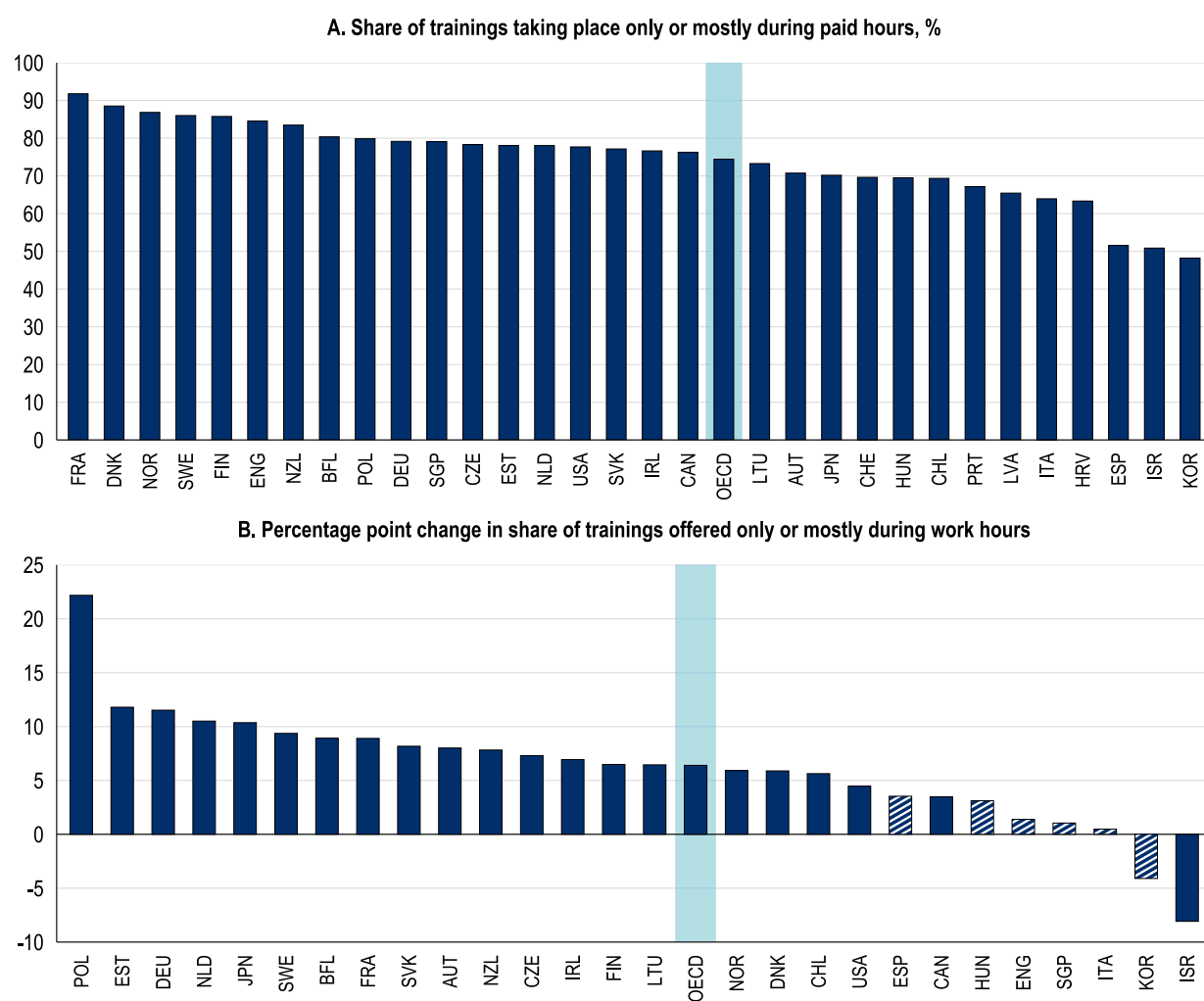
Share of adults reporting non-formal adult learning occurring in a normal working environment, percentage



Note: Employed adults aged 25-65; non-formal job-related adult learning in the 12 months prior to the survey. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning.

Source: OECD (n.d.^[1]), Survey of Adult Skills (PIAAC) (2023) Database, www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

On average across OECD countries and economies, there has been a six percentage point increase in the share of non-formal job-related learning that takes place only or mostly during working hours, with implications for people who are not in employment or whose workplace does not provide learning opportunities (Figure 3.14, Panel B). These developments take on added significance when considered in the context of wider trends in non-formal job-related adult learning. Overall participation rates in non-formal learning have declined in many countries (see Chapter 1), meaning that the observed increase in workplace learning reflects a redistribution of learning activities rather than a net increase in learning opportunities. The increasing concentration of non-formal learning in the workplace raises important issues of accessibility and inclusivity. As non-work learning opportunities decline in many countries, those outside the labour force or in precarious employment may face additional barriers to participating in skills development. As work-based learning is often tailored to specific job roles and needs, its increasing prevalence may limit access to broader skills development opportunities that promote adaptability in a rapidly changing labour market.

Figure 3.14. Most non-formal job-related learning occurs during working hours

Note: Employed adults aged 25-65, non-formal job-related adult learning in the 12 months prior to the survey. Results that are not statistically significant at the 5% level ($p > 0.05$) are shown in striped bars. See Box 1.3 for a note on comparison of data between Cycle 1 and Cycle 2. OECD is an unweighted average of all participating member countries. See Box 1.1 for a precise definition of job-related adult learning. Source: OECD (n.d.^[11]), Survey of Adult Skills (PIAAC) Database (2023), www.oecd.org/en/about/programmes/piaac/piaac-data.html. Underlying data are reported the accompanying Appendix Tables, available at www.oecd.org/en/publications/trends-in-adult-learning_ec0624a6-en/support-materials.html.

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Note

- ¹ This relationship holds even if the outlier Korea is excluded from the analysis.

4 What can be done?

Despite widespread recognition that continuous skills development is essential for productivity, innovation and individual well-being, participation in adult learning is declining in many places and remains highly unequal overall. This chapter examines the evolving policy landscape in adult learning and highlights what approaches policymakers can take to improve adult learning systems.

Rethinking adult learning systems

- Despite a strong consensus on the importance of lifelong learning, **adult learning participating is stagnating or declining in many OECD countries** and remains highly unequal. Time and cost constraints, coupled with limited public investment in lifelong learning, disproportionately exclude disadvantaged adults from upskilling opportunities.
- **Incremental reforms will not be enough.** Increasing participation requires a fundamental rethink of delivery models and incentive structures, supported by coherent policy packages that integrate financial support, flexible learning pathways and active employer engagement.
- **Public financial incentives** – such as training leave, individual learning accounts and targeted subsidies to employers – can reduce barriers to participation, particularly for those on low incomes or in non-standard work. These instruments need to be designed to address structural inequalities and incentivise the development of in-demand skills.
- **Training leave policies are receiving renewed attention across the OECD area, but their uptake and impact remain uneven.** Making leave accessible and attractive to under-represented groups requires sufficient income replacement, employer buy-in and strong public messaging. Governments also face the challenge of aligning participation with labour market needs in a fiscally sustainable way.
- **Flexible learning provision – through modular training, micro-credentials and recognition of prior learning (RPL) – can support adults to upgrade their skills in a stepwise manner.** However, ensuring the quality, relevance and recognition of these new formats is critical to their effectiveness. This requires agile quality assurance mechanisms, employer engagement and clear learning pathways.
- **Participation gaps persist, especially for older workers, migrants and adults with low skills.** These reflect deep structural barriers that cannot be addressed by outreach to these groups alone. Reforming adult learning systems to make them more inclusive means simplifying access, tailoring formats to learners' needs, and embedding equity as a design principle.
- **Current adult learning systems are too often reactive:** dominated by short, compliance-based courses, rather than aligning skills development with future labour market needs. To address this, countries need to improve labour market intelligence, establish mechanisms through which this intelligence feeds into adult learning provision and support firms in workforce planning.
- **Ultimately, successful adult learning systems are those that are responsive, inclusive and forward looking.** They are not built on isolated initiatives, but on a coherent set of mutually reinforcing policies that support individuals throughout their working lives.

Introduction

This report highlights the paradox at the heart of adult learning policy. Despite widespread recognition that continuous skills development is essential for productivity, innovation and individual well-being,¹ participation in adult learning is declining in many places and remains highly unequal overall. Structural barriers – most often relating to cost and time constraints – continue to prevent those most in need of learning from accessing it (see Chapter 3). Public investment remains skewed towards initial education and training, while adult learning systems struggle to keep pace with rapid changes in skill requirements.

On the positive side, this report shows that in many places, participation gaps between disadvantaged and more advantaged individuals are closing. Yet, highly qualified workers continue to be much more likely to participate in training than less qualified workers. Older workers, migrants and those in precarious jobs remain under-represented. Many adults with the weakest foundations for learning are overlooked by policies that increasingly assume individual initiative and self-directed engagement in training. This suggests that the main challenge is not simply to increase training provision, but to redesign incentives and delivery models to ensure that participation is more evenly distributed.

In addition, the changing nature of work raises a fundamental question: Are adult learning systems focused on the right kinds of skills? The data suggest that much of what constitutes non-formal learning is related to health and safety compliance, rather than job-specific or transversal skills that enable workers to adapt to new jobs and industries. In a world of accelerating automation, demographic change and green and digital transitions, policies need to shift from a reactive model – training people for existing jobs – to a proactive one, preparing workers for the future. This requires greater alignment between education, labour market policy and industrial strategy – a shift that few countries have fully achieved. It also requires rethinking the distribution of responsibilities of individuals, employers and policymakers in adapting to these changes.

International experience shows that successful adult learning policies do not rely on a single intervention, but on a coherent set of mutually reinforcing reforms (OECD, 2020^[1]). To engage the half of adults who currently see no need to participate in learning (see Chapter 3), more is required than isolated incentives. It demands a comprehensive, well-communicated package of support to lower practical barriers, build confidence and demonstrate clear personal and professional value. Financial incentives alone are insufficient without time flexibility; modular courses have little impact without strong recognition of prior learning; and micro-credentials risk fragmentation if they are not stackable, portable and widely recognised (OECD, 2023^[2]; OECD, 2021^[3]). Countries that have made the most progress in adult learning participation over the past decade – such as Ireland and Estonia – have done so through long-term, institutionally embedded reforms that combine financial incentives, training leave, employer engagement and quality assurance.

The need for reform is urgent. If there is one overarching lesson from this report, it is that small, incremental changes will not be enough. To truly enable lifelong learning, countries need to rethink the very structures and incentives that govern adult learning today.

Expanding access through training leave policies

Lack of time is the most significant barrier to individuals taking up adult learning opportunities, be this for work or family related reasons, according to the 2023 Survey of Adult Skills (see Chapter 3). In response, several OECD countries have introduced or further developed training leave policies that enable workers to balance learning, employment and family commitments.

The economic case

Paid training leave is a strategic investment in human capital, enabling individuals to acquire new skills and upgrade their qualifications without the financial burden of lost earnings. Such policies address market inefficiencies that can lead to underinvestment in worker training. Employers may be reluctant to allow individuals to take paid time off for learning, due to concerns about staff turnover (OECD, 2021^[4]). By implementing public policies that provide paid training leave – through individual wage replacement or employer subsidies – governments and social partners can encourage greater investment in skill development while reducing employers' concerns about shouldering the entire financial burden.

Beyond the direct benefits to workers and employers, paid training leave has significant societal benefits. A skilled workforce not only boosts productivity within individual firms, but also drives broader economic growth and innovation. Depending on the duration of training leave, it can enable individuals to engage in more substantial retraining required in a context of structural change.

An evolving policy landscape

Over the past 10 years, training leave policies have adapted to the changing needs of economies and labour markets. Many governments are now seeking to ensure fiscal responsibility and to address the fact that, like many adult learning incentives, training leave is more likely to be taken up by those who are more likely to participate in training in the first place. At the same time, there is growing interest in directing participation towards the development of skills that are in demand in high-growth sectors and occupations.

Training leave policies vary widely between countries, reflecting different strategies to meet the needs of workers, employers and governments. Key differences include:

- **Paid versus unpaid leave:** Paid leave provides financial compensation during the leave period, often through direct payments to individuals through the social security system or subsidies to employers. Unpaid leave provides time off without financial compensation, which may be less accessible to lower-income workers. In some countries, while the leave itself may be unpaid, financial support options exist to support learners.
- **Full-time versus part-time training leave:** Full-time leave involves an extended, uninterrupted period away from work for training. Part-time leave allows workers to reduce their working hours to accommodate training activities.
- **Statutory entitlements versus negotiated agreements:** Statutory entitlements are rights to training leave enshrined in national legislation. Negotiated agreements involve the terms of training leave being determined through negotiations between employers and employees, often facilitated by collective bargaining, allowing flexibility but potentially leading to unequal access across companies and sectors.

Austria, for example, has long been the poster child for generous paid leave entitlements for employees, but is in the process of making access more targeted. Its **Educational Leave** (*Bildungskarenz*) was introduced in 1998 to allow workers to take time off for education and training, with financial support from the state. Employees could take between 2 and 12 months of full-time leave or opt for part-time leave for up to two years, which was introduced in 2013. During this period, they received a training allowance from the Public Employment Service (AMS) equivalent to their unemployment benefit (usually 55% of previous net income, with a minimum of EUR 14.56 per day). The programme had grown in popularity over the years, reaching just under 20 000 participants in 2021 (Bittschi et al., 2023^[5]). While the Educational Leave had helped many to upgrade or retrain, a recent evaluation has highlighted that the measure tended to benefit those who are already well integrated in the labour market. It also showed that the employment and wage effects of participation were limited (Bittschi et al., 2023^[5]). To address these challenges, the Educational Leave has been abolished in its current form. A new model **Training Time** (*Weiterbildungszeit*), which is specifically targeted at low-skilled adults is under discussion (ORF, 2025^[6]).

The **Finnish** adult education system has traditionally supported individuals wishing to improve their skills through a combination of leave policies and financial support. Under this framework, workers were entitled to up to two years of unpaid study leave over a five-year period, allowing them to pursue further education while maintaining their employment. To mitigate the loss of income during this period, many workers made use of the **Adult Education Allowance** (*aikuiskoulutustuki*), a financial support mechanism administered by the Employment Fund. This allowance was available to workers with at least 8 years' experience and covered between 55 and 70% of their previous salary, subject to income ceilings. In May 2024, the Finnish Government passed a law to abolish the adult education allowance effective from 1 August, 2024

(Finnish Employment Fund, 2024^[7]). Following the reform, adults seeking financial support for education will mainly rely on Finland's general student financial support system, which consists of a student grant and state-backed student loans. This system has inherent limitations: financial support is only available for a specific number of months over the life-course and individuals who have previously attained a higher education qualification may be ineligible for additional support. The reform could change patterns of participation in adult learning, as it may reduce incentives for mid-career professionals to take longer study leaves, especially for those in higher income brackets who previously benefited from more generous income replacement.

Sweden introduced a paid leave policy in 2022. The **Student Finance for Transition and Retraining**, aims to increase the adaptability of the workforce by enabling adults to undertake training that strengthens their labour market position (Swedish Board of Student Finance, 2022^[8]). The programme provides a grant of up to 80% of an individual's salary for up to 44 weeks of full-time study, with the option to apply for a supplementary loan. To qualify, applicants must be between 27 and 62 years of age, have at least 8 years of work experience and have been employed for at least 12 of the last 24 months. Funding can also be received for part-time study. The training chosen must improve the individual's employability based on labour market needs. Eligibility criteria are designed to support those most likely to benefit from retraining, although recent evidence suggests that the programme might not reach those most affected by structural change (Fredriksson and Seim, 2024^[9]).

In **France**, although the **statutory entitlement for training leave** (*Congé individuel de formation*) was abolished in 2018, individuals have the right to take leave for the purpose of changing occupations, called a **career transition project** (*projet de transition professionnelle*, PTP), with the approval of a public body (*Transition Pro*). The aim of this instrument is to support longer training leave leading to a certification or qualification. Transition Pro assesses whether the planned training corresponds to courses eligible under the Individual Learning Account (CPF). To be eligible, individuals must have been employed for at least 2 years, including 1 year with the same company. The employer cannot deny the application but can postpone the leave for a maximum of 9 months, provided this is justified by the negative impact of the employee's absence on the company's operations. The duration of the leave depends on the type of training that the individual plans to undertake. During the leave, employees who earned less than twice the minimum wage are paid 100% of the average salary they received in the 12 months preceding the training. Those who earned more than twice the minimum wage in that time period are paid 90% of their salary in the first year of training and 60% of their salary in the subsequent years. The salary costs are covered by Transitions Pro (Service-Public.fr, 2025^[10]).

Key considerations

When designing training leave policies, it is essential to consider the perspectives of all relevant stakeholders to ensure their success. From the worker's perspective, paid training leave is a powerful tool to reduce the financial burden associated with training or retraining, making adult learning more accessible. However, replacement rates need to be sufficient to secure the livelihoods of low-income workers who may not have the financial flexibility to compensate for the reduced pay.

For employers, training leave presents both opportunities and challenges. On the one hand, facilitating employee development can lead to a more skilled and adaptable workforce, which is beneficial for long-term organisational growth. On the other hand, employers need to address the logistical difficulties of managing leave, such as temporary staff shortages and the administrative complexity of co-ordinating leave arrangements. These challenges can create resistance to the adoption of educational leave policies, particularly in small enterprises and sectors where maintaining a continuous workforce is critical to operations (OECD, 2021^[4]).

For governments, paid leave programmes require significant financial investment so careful oversight is crucial. They may want to ensure that the allocation of resources matches labour market needs and that programmes effectively support the development of in-demand skills.

What is more, employees need to be aware of training leave arrangements and understand the application process. Complex or opaque systems can discourage participation and undermine the effectiveness of such policies. In addition, organisational culture plays a crucial role in encouraging or discouraging the use of training leave. Workplaces that prioritise continuous learning and employee development tend to create an environment in which employees are more likely to take up training leave. Conversely, in organisations where immediate productivity is prioritised over long-term growth, employees may be less inclined to engage in such initiatives.

In conclusion, the design and implementation of training leave policies must strike a delicate balance between the needs and constraints of workers, employers and governments. Effective policies require careful consideration of the specific economic, cultural and organisational contexts in which they are applied. Adult learning policies are most effective when they are designed to reach adults who face the greatest barriers to participation or who may be least aware of the opportunities available to them, and when they are adapted to the economic realities faced by these individuals and by employers.

Addressing cost barriers through financial incentives

Cost remains one of the most significant barriers preventing individuals from participating in adult learning. Financial constraints are particularly acute for low-income workers and those outside the labour market, who may struggle to afford the direct costs, e.g. course fees, and indirect costs of learning, i.e. loss of income associated with time spent in training. While employer-sponsored training remains the dominant form of adult learning (see Chapter 3), it is mainly concentrated among higher-skilled workers, leaving those with lower qualifications with fewer opportunities to upgrade their skills. To address these inequalities, many OECD countries have developed public financial incentives to reduce the direct and opportunity costs of training.

Over the past decade, financial support for adult learning has evolved, with an increasing emphasis on more individualised and portable funding mechanisms. The Council of the European Union's recommendation on Individual Learning Accounts in 2022 is a key driver of these developments in European countries (Council of the European Union, 2022^[11]). Traditional mechanisms, such as tax deductions, have often been criticised for disproportionately benefiting those already in training – typically those with higher earnings and stable employment. In response, governments are seeking to design financial incentives that effectively target those most in need, ensuring that public funds are used efficiently to address skills gaps and promote inclusive workforce development.

The economic case

Public investment in financial incentives for adult learning is justified by its potential to improve labour market outcomes, economic growth and social inclusion. A well-targeted system of financial support can help address market failures that lead to underinvestment in skills, particularly among low-income and disadvantaged adults (Brunello and Wruuck, 2020^[12]; OECD, 2021^[4]; Brunello, Rückert and Wruuck, 2024^[13]). A key rationale is that skill development generates positive externalities: when individuals acquire new skills, the benefits extend beyond their own returns and those of their employer to the wider economy. A more skilled workforce leads to higher productivity, increased innovation and greater economic resilience in the face of technological change. Without financial support, many people – especially those on lower incomes – may not be able to invest in training, even though the long-term benefits outweigh the short-term costs.

In addition, financial incentives help to compensate for employers' reluctance to train. Many firms are reluctant to invest in training because of the risk of employees leaving for other jobs after benefitting from the investment in their skills (this is known as the “poaching externality”). Public financial incentives can help mitigate this risk by co-financing training.

There is also a fiscal rationale for investing in financial incentives for training. Increasing participation in adult learning can improve employment rates and reduce reliance on unemployment benefits and other social assistance programmes. Workers with higher skills tend to earn higher wages (OECD, 2024^[14]), which translates into higher tax revenues and lower public expenditure on social support.

This is particularly true for basic skills, where employers often have weak incentives to invest. Literacy and numeracy skills underpin the acquisition of more specialised skills, but their economic returns are diffuse and long-term – often benefiting society more than the individual firm. With PIAAC data showing a decline in basic skills levels in many countries (OECD, 2024^[14]), government investment is crucial not only to reverse these trends but also to ensure that wider adult learning policies can be effective. Without a solid foundation, the benefits of more advanced or targeted training programmes are unlikely to be fully realised.

Evolving approaches to financial support

OECD countries have developed a range of financial instruments to support participation in adult learning, reflecting differences in funding sources, mechanisms and target groups. Broadly speaking, two main policy levers emerge:² the individualisation of training incentives through direct financial support to learners, such as Individual Learning Accounts (ILAs), and subsidies for employer-led training, which encourage firms to invest in the development of their workforce.

Individualised training incentives

Individual Learning Accounts (ILAs) are portable and employee-owned training funds designed to support lifelong learning. These accounts allow individuals to accumulate training credits over time, providing flexibility to engage in skills development regardless of employment status. In some countries, ILAs serve as a centralised funding mechanism, bringing together different forms of training support into a single system.

France's Individual Learning Account (*Compte Personnel de Formation [CPF]*) is one of the most prominent examples, introduced in 2015 to give workers greater autonomy in managing their own training. Funded by a company levy, the CPF is available to all individuals active in the labour market. Employed adults accumulate annual credits of between EUR 500 and EUR 800 which can be used to finance approved training courses. The system is accessed through *Mon Compte Formation*, a personal online account that allows individuals to track their balance and register for training. Additional funding options are available through the digital platform; for example, jobseekers can request support from the public employment service if their CPF balance is insufficient or depleted. The CPF can be used for a wide range of learning activities, including education and training leading to full or partial professional qualifications registered in the National Register of Professional Qualifications, certifications listed in the Specific Register, validation of prior learning and experience, skills assessments, and preparation or training to obtain a driver's licence.

Other countries have introduced similar schemes with different structures. **Singapore's SkillsFuture Credit** (SFC), launched in 2015, provides two tiers of credit payments – SGD 500 at age 25 and an additional SGD 4 000 at age 40 – to support lifelong learning. The funding is linked to training for occupation-specific and transversal skills as defined in its Skills Framework, which is developed with labour market partners to identify and articulate industry-relevant skills (OECD, forthcoming^[15]). Several European countries are piloting Individual Learning Accounts (e.g. Czechia, Latvia, Lithuania) or have plans to transform existing financial incentives into Individual Learning Accounts (e.g. Croatia). In the Netherlands,

the Labour Market Stimulation scheme (*Stimulerende Arbeidsmarktpositie [STAP]*) replaced a previous tax incentive in 2022, providing up to EUR 1 000 per year for training to individuals aged 18-67 who were in the national insurance system. While STAP was designed to support the development of vocational skills, it initially allowed a wide range of courses, including personal development programmes. However, the scheme was short-lived and was suspended in 2023 due to budget constraints, concerns about its cost-effectiveness, and the risk of funding courses that were not relevant to the labour market (OECD, forthcoming^[15]).

Supporting employer-provided training

The rationale for supporting employer-based training is twofold: first, while firms benefit from a more skilled workforce, they may underinvest due to concerns about employee turnover or uncertain returns to training, particularly for low-skilled workers; second, employer-supported training remains the dominant form of adult learning, and financial incentives can help to shape firm behaviour to promote upskilling.

Germany has gradually expanded co-financing mechanisms to support employer investment in employee training, especially over the last decade. The introduction of the **Qualification Chances Act** (*Qualifizierungschancengesetz*) in 2019 and the **Work of Tomorrow Act** (*Arbeit-von-Morgen-Gesetz*) in 2020 has been crucial in broadening access to subsidised training for workers at risk of job displacement due to technological advances. These measures are designed to reduce the financial burden on companies, with the Federal Employment Agency covering part of the training costs and wage subsidies for employees undergoing retraining. Under these laws, training subsidies are determined by factors such as company size, type of training, employee characteristics and social dialogue practices. Support can range from 15% to 100% of direct and indirect training costs. Micro-enterprises (less than 10 employees) receive full coverage of training costs, while larger enterprises (more than 2 500 employees) can claim up to 15% of the costs. Specific groups, including older workers (45+), people with disabilities and low-skilled workers who are upgrading their skills, also receive full funding. Further subsidies are available if more than 20% of a company's workforce needs retraining or if the company has a collective agreement. In addition, wage costs associated with training can be fully subsidised, depending on the size of the company and the type of training. While the system provides crucial support to SMEs and companies undergoing structural change, as well as to those engaged in social dialogue, the Work of Tomorrow Act has introduced more administrative complexity in the management of these funds. (OECD, 2021^[16]; Deutscher Bundestag, 2018^[17]; Bundesregierung, 2020^[18])

This approach reflects a wider trend towards shared financial responsibility for adult learning, where public funds encourage employers to co-invest in skills development.

Key considerations

One of the key challenges in designing financial incentives is to ensure that they reach the individuals and groups who need them most. Broad-based subsidies can encourage wider participation, but often risk benefiting individuals who would have undertaken training without financial support. This is a particular concern when resources are limited and there is a need to allocate funds efficiently. On the other hand, narrowly targeted schemes may exclude workers who would greatly benefit from training but do not meet the strict eligibility criteria. Policymakers must therefore carefully consider how to design financial incentives that balance inclusiveness with a targeted approach that directs support to those who face the greatest barriers to learning, without wasting resources on individuals who are already highly motivated or financially secure enough to undertake training on their own.

An equally important consideration is the accessibility of financial incentives, which often depends on awareness and administrative simplicity. Despite the availability of training grants and tax incentives in many countries, take-up remains low because individuals and enterprises are either unaware of these

schemes or find the application processes too complex and time-consuming. Simplifying administrative procedures, providing clear and accessible guidance and ensuring active promotion of available schemes are all essential steps to increase the take-up of financial incentives. A transparent, user-friendly application process can significantly improve participation and thus the overall impact of these programmes on adult learning outcomes.

Similarly, the alignment of training incentives with labour market needs is crucial to ensure that the resources invested in training lead to tangible economic benefits. Financial incentives should not only encourage participation in education and training, but also ensure that the training undertaken is relevant to current and future labour market needs. This requires close co-operation between governments, employers and training providers to ensure that funded programmes are designed to equip workers with skills that are genuinely in demand. If incentives for training are not aligned with the needs of employers, there is a risk that public funds will be directed towards low-value courses that provide little benefit to the workforce. In some cases, this misalignment can exacerbate skills mismatches in the labour market, resulting in a workforce that is overqualified in some areas but underprepared in others.

In addition, the experience of Individual Learning Accounts (ILAs) in several countries has highlighted the importance of robust oversight to ensure the integrity of financial incentive schemes. Without proper regulation and monitoring, there is a risk that these incentives will be exploited by unscrupulous training providers offering low quality courses that fail to deliver meaningful skills development. In such cases, the financial resources allocated to the incentives may be wasted and participants may not gain the skills they need to improve their employability. Establishing clear accreditation standards, continuous monitoring of training outcomes and regular evaluation of course quality are essential measures to ensure that financial incentives support high quality, effective education and training (OECD, 2024^[19]; OECD, 2021^[20]).

Enhancing flexibility in adult learning provision

The data presented in this report suggests that much non-formal adult learning is often of short duration and focused on compliance-based training, such as health and safety, rather than broader skills development (Chapter 1). This highlights the need for stackability, portability and recognition of these shorter programmes, particularly for workers facing career transitions due to economic change. Many countries are moving towards more flexible learning models, including micro-credentials and modular qualifications that can be accumulated and used across sectors. However, it remains a challenge to ensure that these qualifications are of high quality, recognised by employers and accessible to all workers.

The economic rationale

The economic rationale for more flexible provision of adult learning is to adapt to the realities of an increasingly dynamic labour market. Traditional adult learning systems often fail to meet the needs of today's learners. Existing programmes tend to be long, rigid and not adapted to the requirements of continuous skills development. As such, they are ill-suited to workers who need flexible, targeted and accredited learning opportunities to up-skill, re-skill or move between careers (OECD, 2023^[21]).

For adults, the availability of more adaptable learning pathways – such as modular courses, micro-credentials and Recognition of Prior Learning (RPL) systems – enhances career mobility and reduces barriers to employment. These flexible models allow adults to acquire relevant skills incrementally, which is particularly valuable for individuals undergoing career transitions or re-entering the labour market after a period of unemployment. Importantly, such flexibility helps adults avoid the need to commit to long, rigid courses that may be incompatible with their personal or professional lives, thus facilitating greater participation in lifelong learning.

For employers, flexible adult learning systems provide a means of ensuring that the workforce remains responsive to changing skills requirements. As the pace of technological change accelerates, industries are under increasing pressure to adopt innovations, adapt business models and ways of working. Flexible learning systems enable employers to up-skill or reskill their workforce in a timely manner, helping to fill skills gaps and mitigate the risk of labour shortages or mismatches. Moreover, by providing training that is closely aligned with industry needs and workers' interests, these systems can foster stronger employer-employee relationships and promote a more skilled and adaptable workforce.

At a societal level, the widespread adoption of flexible learning pathways has the potential to strengthen labour market resilience, particularly in times of economic transition or technological disruption. The ability for individuals to accumulate skills in a modular, flexible way allows for a more adaptable workforce that can smooth the transition for workers, reducing the social and economic costs associated with labour market disruptions.

Evolving approaches

Despite these benefits for individuals, employers and the wider economy, many OECD countries continue to face challenges in creating more flexible learning pathways. In response, three key policy levers – recognition of prior learning (RPL), modularisation and micro-credentials, and quality and relevance assurance – are evolving to create more dynamic and inclusive learning opportunities.

Recognition of prior learning

Recognition of Prior Learning (RPL) allows individuals to validate skills and knowledge acquired through work experience, non-formal and informal learning. This can reduce the time and cost of gaining formal qualifications, making it an important tool for adults who have acquired considerable skills but lack recognised qualifications. The RPL process may also provide other outcomes in the form of credits or units towards a new qualification, an exemption from entry requirements or a certificate of labour market competence (Meghnagi and Tuccio, 2022^[22]). However, despite its potential, RPL remains underutilised in many countries due to complex procedures, inconsistent assessment methods and limited awareness. This underutilisation represents a missed opportunity from an economic perspective: RPL can improve the efficiency of adult learning systems by making better use of existing skills in the labour market, reducing duplication of training provision and accelerating reskilling pathways – particularly for mid-career workers. Without accessible and credible RPL systems, individuals and employers face higher opportunity costs in obtaining formally recognised qualifications, which may discourage investment in upskilling altogether.

Several countries have sought to develop and integrate RPL into their qualifications frameworks. **Portugal's Qualifica Centres** provide structured pathways for individuals to have their skills assessed and certified, increasing accessibility and awareness of RPL opportunities. In **Finland**, RPL has been embedded into vocational education, allowing workers to gain formal qualifications through competency-based assessments rather than traditional coursework. In **France, Spain and Switzerland**, individuals can obtain part of or full qualifications through RPL (OECD, 2023^[23]; SEFRI, 2025^[24]). What is more, in **France**, adults can use funds from their individual learning accounts (CPF) to fund the process for the recognition of prior learning (*Accompagnement pour la validation des acquis de l'expérience*) (Service-Public.fr, 2025^[25]).

However, challenges remain in ensuring consistency, transparency and labour market recognition. Many RPL systems still require individuals to provide extensive documentation, disadvantaging those in informal or non-standard employment. Moreover, while RPL is embedded in some National Qualification Frameworks (NQF), there is often a gap between policy and practice, with employers and training providers reluctant to fully accept non-certified learning experiences.

Modularisation and micro-credentials

Modular learning – where courses are broken down into smaller, stackable units – has emerged as an effective way of providing flexible and targeted upskilling opportunities. Unlike traditional qualifications, which often require long-term, full-time study, modular courses allow learners to accumulate credits over time, helping them to balance training with work and family responsibilities. They also support the recognition of partial learning, providing value to individuals who, despite their intentions, are unable to complete a full qualification for various reasons.

Micro-credentials are closely related to the modularisation of adult learning provision, although the two are not equivalent. Micro-credentials are a form of certification awarded upon completion of learning experiences that are typically shorter than traditional education and training programmes. They may serve as standalone qualifications or be embedded within broader learning pathways, functioning as modular components of a larger programme (Kato, Galán-Muros and Weko, 2020^[26]; OECD, 2023^[21]).

Many countries are now embedding micro-credentials in their national education and training systems. Poland is piloting a national microcredentials system using the **Odznaka+ (Badge+)** online platform for digital credentials. **New Zealand's Micro-Credential Framework** formally integrates short courses into the NQF, ensuring that they have value beyond individual training providers. In **Ireland**, micro-credentials are included as special awards in the NQF. **Australia launched Microcred Seeker**, a centralised online platform for micro-credentials, in late 2022, following recommendations from the 2019 Australian Qualifications Framework Review. While micro-credentials were not formally integrated into the National Qualifications Framework, stakeholder consultations highlighted the need for clear, consistent guidance to improve their recognition and value. Microcred Seeker provides a transparent, user-friendly database of micro-credential courses across all sectors and training providers (OECD, 2023^[21]).

The growing number of micro-credentials – often issued by different providers, including universities, schools and private companies – raises concerns about their transferability and labour market recognition. Without standardised frameworks, there is a risk of fragmentation if micro-credentials lack clear progression routes towards larger qualifications or employer confidence. Countries are working to address this by establishing credit transfer systems that allow learners to ‘stack’ credentials towards formal degrees, ensuring coherence in modular learning pathways.

Ensuring quality and relevance

As flexible learning opportunities become more widespread – particularly in the form of short, modular courses and micro-credentials – ensuring their quality and labour market relevance has become a pressing policy concern. Unlike traditional qualifications, many new forms of learning are delivered online or by private providers, often outside the scope of established accreditation systems. This creates uncertainty for learners about the value of their qualifications and limits employers’ confidence in recognising them.

Quality assurance has an important role to play in addressing this gap, but existing frameworks are often not designed to accommodate rapidly evolving and decentralised learning formats. Micro-credentials in particular present particular challenges: their strength lies in their speed and adaptability to changing skills needs, but this very flexibility can undermine consistent standards and comparability across providers (OECD, 2023^[21]). A lack of clear, trustworthy quality assurance mechanisms can leave learners vulnerable to investing in low quality training that does not support their progression.

In response, countries are beginning to adapt their quality assurance systems to cover newer forms of learning. **New Zealand** is one of the few countries to have established a stand-alone quality assurance process for micro-credential programmes. Micro-credentials undergo a thorough assessment to ensure they meet the required quality standards and criteria, mirroring the rigorous accreditation process used for other, more formal learning opportunities. This process includes a comprehensive review of the content, delivery methods, assessment practices and outcomes of the micro-credential, ensuring alignment with

industry standards and addressing identified skills needs. Once a micro-credential successfully meets the required criteria, it is approved and registered by NZQA, giving it official recognition and credibility within the New Zealand education and training landscape. In addition, micro-credentials quality assured by NZQA must be delivered by accredited education and training providers – meaning that New Zealand has a system of accrediting both providers and individual courses (NZQA, 2024^[27]).

Some countries have opted for programme-level quality assurance systems for micro-credentials. However, this level of oversight is typically reserved for some institutions, such as private higher education institutions or those without university status. In **Ireland**, traditional and technological universities have the authority to award qualifications and to monitor the quality and development of their own programmes. Consequently, QQI, the national regulatory body, carries out institutional level assessments for these universities. For other types of micro-credential providers, particularly private independent providers, QQI carries out quality assurance at the programme level (OECD, 2023^[7]).

In some countries, assuring the relevance of learning opportunities to the labour market goes hand-in-hand with ensuring quality. Singapore's **SkillsFuture Industry Transformation Maps** are a well-established example, bringing together industry leaders to define occupational standards and align modular training with workforce needs. **Ireland** has also embedded employer engagement in its quality assurance framework for micro-credentials, with national guidelines developed through collaboration between education providers, Quality and Qualifications Ireland (QQI) and industry stakeholders to ensure relevance and transferability.

Maintaining trust in flexible learning systems will depend on balancing flexibility with clear standards, consistent recognition, and transparency. As digital and non-traditional learning expands, strengthening quality and relevance assurance – not only to protect learners but also to ensure employer buy-in – will be critical to realising the potential of flexible adult learning systems.

Key considerations

A key challenge for flexible adult learning systems is to ensure that modular courses and micro-credentials make a meaningful contribution to career progression. This requires mechanisms that enable learners to build on their achievements over time, whether through formal credit transfer systems, employer recognition or validation within sectoral or institutional frameworks. While integration into qualifications frameworks can provide coherence and visibility, not all systems require formal alignment to be effective. The key is for learners to understand the value of their training and how it relates to further learning or labour market opportunities.

Another concern is the depth and sustainability of learning. While modular formats improve accessibility, many focus narrowly on immediate, job-specific skills that may not support long-term adaptability. As demand grows for workers who combine technical expertise with transversal skills such as problem-solving and collaboration, training systems need to ensure that short courses are embedded in broader learning pathways. Stackable qualifications and competency-based assessment can help ensure that short-term learning contributes to sustainable skills development.

For flexible learning to be widely recognised and used, greater employer engagement is essential. Despite growing interest in micro-credentials and modular learning, employer recognition remains uneven, limiting their value in recruitment and progression decisions. Involving industry in the design, validation and co-financing of training can help bridge this gap. Initiatives that allow employers to shape training content and standards – together with the use of trusted digital credentials – can improve the labour market relevance and transparency of flexible learning.

Finally, making flexible learning accessible to all workers requires targeted support. While modular formats reduce some barriers, they are often least accessible to the workers who would benefit most – such as those in precarious employment, older adults and the low-skilled. Expanding financial incentives for short

courses that are portable and accessible, and providing quality career guidance, are key to enabling all adults to upskill and reskill in ways that meet the changing demands of the labour market.

Strengthening targeted policies for underrepresented groups

Despite policy efforts to widen access to adult learning, participation remains highly unequal (see Chapter 2). This report shows that older workers, migrants and those with lower formal qualifications are significantly less likely to participate in training than other groups. These disparities reflect both structural barriers – such as cost, time constraints and accessibility – and lower perceived benefits of training among these groups. What is more, individuals who have had negative experiences of formal education may lack confidence in their ability to learn, while others may struggle to find training opportunities that meet their specific needs.

Addressing these inequalities requires more than targeted initiatives. In many cases, adult learning systems as a whole fail to meet the needs of disadvantaged groups. If systems remain overly complex, inflexible or employer-dependent, even well-designed outreach and targeted financial incentives will have limited impact. Ensuring access requires rethinking adult education systems – including simplifying learning pathways, embedding more flexible, learner-centred approaches and enable adults to train for skills in demand.

Economic rationale

Despite clear economic benefits, both individuals and enterprises systematically underinvest in training for those groups most in need – such as the low-skilled, migrants and older adults – due to market failures and misaligned incentives. Individuals in these groups may face liquidity constraints, lack of awareness of training opportunities, time or location barriers, or perceive the returns to training as uncertain, leading to low participation in lifelong learning (see Chapter 2). From the employer's perspective, firms may be reluctant to invest in training for workers who are perceived as having lower productivity or higher turnover risks, particularly in sectors with low profit margins or a high prevalence of temporary contracts.

These market failures justify targeted public intervention. Without policy action, these groups will be left further behind, and skill gaps and shortages will persist, reducing labour market efficiency, constraining economic growth and exacerbating inequality. Public investment in lifelong learning – through financial incentives, employer co-investment schemes and tailored outreach initiatives – not only expands the talent pool but also boosts productivity by enabling workers to move into higher-value jobs. Ensuring that training systems are accessible to all workers is therefore not just a social policy objective, but a fundamental economic strategy for maintaining competitiveness in an era of rapid technological and demographic change.

Evolving approaches

Countries have adopted a range of targeted measures to increase participation in adult learning. These strategies seek to reduce structural barriers, enhance the perceived value of training, and create learning environments that are tailored to specific needs.

Community-based learning initiatives

Traditional education and training institutions can struggle to reach out to and engage with underrepresented learners, particularly those who are economically inactive or lack confidence in their learning abilities. To overcome these challenges, some countries have invested in community-based learning initiatives, which provide training in familiar and accessible settings. These initiatives aim to reach

individuals who may be hesitant to engage with formal education but who benefit from localised, supportive learning environments.

In **Ireland**, **family literacy programmes** have been integrated into national strategies to improve the literacy and numeracy skills of children and young people. The National Adult Literacy Agency (NALA) has been a key advocate for family literacy, highlighting the role that parents and communities can play in language, literacy and numeracy development. NALA has developed resources such as the helpmykidlearn.ie website and the Family Project television series to raise awareness and support family learning initiatives. These efforts are complemented by extensive research on family learning provision in and outside of Education and Training Boards in Ireland, as well as the development of guidelines (Devitt and Coleman, 2022^[28]; ETBI, NALA and SOLAS, 2021^[29]).

In the **United Kingdom**, trade unions have played an important role in promoting adult learning through initiatives such as **Union Learning Representatives (ULRs)** (UnionLearn, n.d.^[30]). ULRs are members of independent trade unions who are elected to promote the value of learning, support learners and organise training in the workplace. Central to their role is engaging learners who are otherwise difficult for providers to reach. They also provide information, advice and guidance, carry out initial skills assessments, link learners with providers, support learners through union learning centres, arrange flexible provision for shift workers and plan next steps in learning. Evaluations of the approach have shown that trade unions can provide a bridging function between employers and employees with low skills (Stuart et al., 2016^[31]). Until 2020, this initiative was supported by the Union Learning Fund, which led to concerns about the future of union-led learning initiatives (UK Parliament, 2020^[32]).

In **Italy**, the **Provincial Centres for Adult Education (CPIA)** respond primarily to the needs of low-skilled adults who have not completed upper secondary education and to migrants whose qualifications are not recognised in Italy. The learning offer of the CPIA is organised in three strands: literacy and Italian language courses, courses corresponding lower secondary education and to the achievement of the certification attesting to the acquisition of basic skills relating to compulsory education, and courses corresponding to a technical, vocational or artistic upper secondary school diploma. At the end of each course, students need to demonstrate they have acquired certain competences. To facilitate access and shorten learning times, the CPIA offer a programme to identify, assess and certify which of these final competences the adult might already possess. The validation of these competences translates into a reduction of the number of hours of classes that the student will need to attend.

Work-based learning for adults with low skills

For many low-skilled workers, the opportunity cost of leaving work to participate in training is too high. What is more, they may have bad experiences with traditional classroom-based training. To address this, some countries have focused on work-based learning models, which allow individuals to develop new skills while remaining employed. These initiatives provide structured on-the-job training opportunities that are closely aligned with industry needs, ensuring that training directly contributes to career advancement.

Norway's Skills Plus programme (*Kompetansepluss*) is one of the longest-running programmes of its kind in the OECD. Launched in 2006, it aims to provide adults with opportunities to acquire basic skills such as literacy, numeracy and digital literacy in the workplace. The programme provides grants to both private and public enterprises to facilitate tailor-made training that combines basic skills training with work-related learning activities. Over 100 000 workers have received training through the programme since its inception. There is evidence that participation results in employees making fewer mistakes, communicating better and being more motivated. (Norwegian Directorate for Higher Education and Skills, 2025^[33]).

In **Belgium**, **Socio-Professional Integration Centres (CISP)** are integration operators providing career guidance, basic education, and vocational training to low-skilled unemployed adults. CISPs use innovative and personalised teaching methods to meet the needs of the low-skilled. There are two types of CISP:

traditional CISP, whose approach consists of courses and practical exercises in a classroom, and ‘work-based training enterprises’ (EFT) where trainees are exposed to real work situations by participating in the activities of the enterprise. CISPs also provide psychosocial support, childcare and transport subsidies to trainees. Each year about 14 000 people are trained in a CISP, 25% of them are in EFT.

Bridging programmes for migrants and refugees

Migrants and refugees often face multiple barriers to labour market integration, including language difficulties, unrecognised qualifications, and unfamiliarity with local work practices. To address these challenges, many countries have developed bridging programmes that combine language training with vocational education, ensuring that individuals gain both the communication skills and occupational competencies needed to secure stable employment.

In **Canada, the Ontario Bridge Training Program (OBTP)** continues to help internationally educated professionals transition into the Canadian labour market. The programme provides specialised, occupation-specific training and support services to help immigrants meet licence requirements and secure employment commensurate with their qualifications. Eligibility criteria include residence in Ontario, international post-secondary education and work experience in the occupation. The programme has a focus on high-demand sectors to align with labour market needs. (Canadian Ministry of Labour, 2024^[34])

Key considerations

While targeted policies can help to increase participation in adult learning, their success depends on careful design and implementation. Several key factors influence their effectiveness:

- **Addressing multiple barriers simultaneously:** Underrepresented groups often face a combination of financial, informational and logistical barriers to learning. Interventions that focus on only one aspect – such as financial incentives – may fail to address deeper structural challenges. Successful interventions tend to combine: financial support (e.g. training vouchers, wage subsidies), personalised guidance (e.g. career counselling, mentoring) and flexible learning formats (e.g. modular courses, online and blended learning).
- **Building trust and awareness:** Many disadvantaged learners are unaware of available training opportunities or may be sceptical about the value of learning. Community-based initiatives and peer networks can play a crucial role in raising awareness and building trust. Culturally sensitive outreach programmes – such as those involving community leaders or migrant organisations – can help reach learners who might not otherwise engage with formal training providers.
- **Ensuring that training leads to tangible employment outcomes** is critical to sustaining participation. Programmes that are closely aligned with employer needs help learners to see a clear return on investment. Close collaboration between governments, employers and training providers is essential to ensure that skills development initiatives add value to people’s life chances.
- **Evaluating impact and scaling up successful models:** While many targeted initiatives have shown promising results, scaling up effective programmes remains a challenge. Policymakers should invest in robust monitoring and evaluation frameworks to assess which interventions are most effective in reaching underrepresented groups. Successful models should then be scaled up and adapted to different contexts, ensuring that best practice is widely shared.

Targeted interventions alone are not sufficient if the broader adult learning system remains rigid and exclusionary. Many disadvantaged learners are unable to access training not because of a lack of targeted initiatives, but because the system itself is too complex, too employer-dependent or too inflexible to meet their needs. Strengthening adult learning therefore requires a dual approach: expanding targeted

interventions, but also challenging the fundamental structure of the system to ensure that it provides real opportunities for all learners.

Aligning adult learning with labour market needs

Ensuring that adult learning systems are responsive to labour market needs is crucial for economic growth, workforce adaptability and social inclusion. This report has shown that much of adult learning participation relates to training for regulatory compliance, such as health and safety certification, rather than to broader upskilling or reskilling initiatives aligned with emerging job opportunities. While these courses are crucial, they should be separated out as they blur the picture of existing investment in training that is effectively preparing workers for future labour market needs.

To address this challenge, many countries have moved towards aligning adult learning policy to labour market demand. This shift includes strengthening skill anticipation and labour market intelligence, developing sectoral training strategies, and promoting employer involvement in training design. It should be noted that designing adult learning systems that respond to labour market needs require more than better anticipation – they also need to ensure that training content is regularly updated to reflect those changes, that firms are able to anticipate skills needs, and that incentives are in place to encourage both workers and employers to invest in relevant training.

The economic rationale

Training that is aligned with labour market needs ensures that adult learning translates into tangible economic benefits for individuals, enterprises and economies. By training in in-demand skills individuals can experience wage growth and career progression. Enterprises can improve productivity, enhance competitiveness and adapt more effectively to changing industry trends. This is particularly important in high-growth and high value-added sectors, where the skills of the workforce have a direct impact on innovation and economic performance.

Beyond individuals and enterprises, matching training to labour market demand helps to reduce skills mismatches. When workers are trained in skills that are not relevant to employers' needs, vacancies go unfilled while skilled people struggle to find work. A well-designed adult learning system reduces these inefficiencies by ensuring that supply and demand for skills are more closely matched, leading to lower unemployment rates and a more dynamic labour market.

Evolving approaches

Over the past decade, governments have prioritised improving skills anticipation mechanisms and strengthening firms' capacity for effective workforce planning.

Advances in skills anticipation

Many countries are investing in real-time labour market data and sophisticated skills forecasting models to better predict future workforce needs. In **Australia**, Jobs and Skills Australia (JSA) is working with data analytics companies to analyse **real-time trends in job advertisements**. This initiative aims to identify skills that have grown in demand in recent years by matching information from job advertisements to detailed occupational profiles within the Australian Skills Classification. Such analyses provide granular insights into evolving skill requirements across different sectors. Similarly, the **UK's** Department for Business, Energy and Industrial Strategy (BEIS) is using **big data approaches** to monitor the evolution of green jobs and skills. By applying machine learning algorithms to data from job advertisements, BEIS produces detailed, real-time insights into the growth of 'clean growth jobs' across the United Kingdom. This

data informs policy making in line with the government's Ten Point Plan for a Green Industrial Revolution. (OECD, 2023^[35])

In the **Flemish Region (Belgium)**, the analysis of online job vacancies informs the regular update of occupational standards, recognised documents that define the skills, abilities and attitudes that workers in an occupation must possess to effectively carry out their tasks, by VDAB, the Flemish public employment service. These standards are then used to develop labour market tools (orientation, matching, training and education) and a labour market monitoring framework (vacancies, jobseeker profiles, labour shortages).

Another notable development is the shift from anticipating occupational needs to anticipating skill needs. This shift allows countries to gain deeper insights into the specific skills required in the future workforce, the basis for modularisation and creating more flexible learning pathways (see above). For example, **Slovenia** uses a national skills taxonomy to predict future skills needs, while **Singapore and Germany** use job vacancy data in an analogous way (SkillsfutureSG, 2025^[36]). Beyond quantitative analysis, some countries complement their anticipation exercises with qualitative methods such as focus groups, interviews with experts and companies, and employer surveys, as seen in **Estonia, Spain, and Italy**. By combining both quantitative data and qualitative insights, these countries are refining their ability to accurately reflect skill needs and to better align education and training systems with emerging labour market trends.

Building business capacity for workforce planning

While government efforts are crucial in anticipating labour market trends, companies also need support to plan effectively for their future workforce needs (OECD, 2024^[37]). In **France**, for example, **skills operators** (*Opérateurs de Compétences, OPCO*) provide advisory services to small and medium-sized enterprises (SMEs). These organisations help define training needs, identify opportunities and advise on available financial support. There are 11 sectoral OPCOs with numerous branches throughout France, staffed by social partners who ensure that services are tailored to the specific needs of different sectors. (OECD, 2021^[4])

In **Finland**, the public employment services implement **Joint Purchase Training** (*Yhteishankintakoulutus*) in co-operation with employers or groups of employers. This initiative provides technical assistance to enterprises in developing tailor-made training programmes, selecting providers and selecting participants (OECD, 2020^[38]). The **German** programme **People as Corporate Value** (*UnternehmensWert Mensch*) provides targeted and subsidised consultancy services for SMEs to develop modern, people-centred HR strategies. Companies can hire consultants for a fixed period at a subsidised rate, depending on the size of the company. Evaluations of the programme indicate that participating companies would not have undertaken similar initiatives without the support of the programme (INQA, 2015^[39]).

Key considerations

Ensuring that adult learning systems are responsive to labour market needs requires policies that reflect the accelerating pace of economic and technological change, the emergence of new skills and the need for rapid adaptation of training provision. Digitalisation, automation and the green transition are redefining job requirements faster than traditional training models can adapt. To stay relevant, adult learning must be reimaged as a fluid, lifelong process – modular, stackable and responsive – so that adults can continuously upgrade their skills without leaving the labour force.

Beyond technical expertise, the future of work depends on new combinations of skills – combining technical with transferable skills. As machines take over predictable tasks, employers value workers who can problem-solve, collaborate and pivot in dynamic environments. Training must embed these multi-dimensional skills to ensure workers are not only skilled, but also resilient in an era of constant disruption.

Workforce planning remains another weak link. Many companies, especially SMEs, struggle to predict future skills needs, leaving critical gaps in training investment. Equipping employers with better skill assessment and anticipation tools can bridge this gap. The closer businesses and training providers work together to quickly implement trainings that address fast-emerging skills requirements, the more seamless the transition from education to employment.

Aligning adult learning with labour market needs is not just about predicting future skills; it requires a system that can evolve in real time. Governments, businesses and educators must move from reactive to anticipatory strategies, building learning ecosystems that are as agile as the economies they serve.

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Notes

¹ Member Countries of the European Union have long worked together to achieve common goals in the area of skills and adult learning. Most recently, shared goals have been defined under the Union of Skills initiative, which fosters a co-ordinated approach to upskilling and reskilling across the EU by aligning national efforts with common priorities in lifelong learning and labour market resilience. It builds on the European Skills Agenda from 2020 (EC, 2025_[40]).

² It should be noted that these refer to newly introduced policies in the past decade. More generally, many countries continue to primarily rely on direct supply-side funding of education and training institutions.

Trends in Adult Learning

New Data from the 2023 Survey of Adult Skills

This report assesses the state of adult learning across OECD countries, exploring trends in participation rates and modes of delivery of adult learning. It highlights differences between socio-demographic groups in their propensity to participate in adult learning, identifies groups that are most vulnerable to encountering barriers to learning, and makes policy recommendations to improve the accessibility and effectiveness of adult learning. Despite growing consensus on the importance of lifelong learning for economic resilience and individual opportunity, participation in adult education is stagnating or even declining in many countries. While participation gaps are narrowing in many cases, this is often due to falling participation among adults who had previously been more likely to participate rather than rising rates among groups who were traditionally less likely to do so. Furthermore, much of today's adult training is compliance- or safety-driven and of quite short duration; this may be insufficient to meet the upskilling and reskilling needs of fast-changing labour markets. Drawing on new data from the Survey of Adult Skills (PIAAC), this report will be of interest to policymakers, education providers and employers seeking to design more inclusive, responsive adult learning systems that support both individuals and labour markets in transition.



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