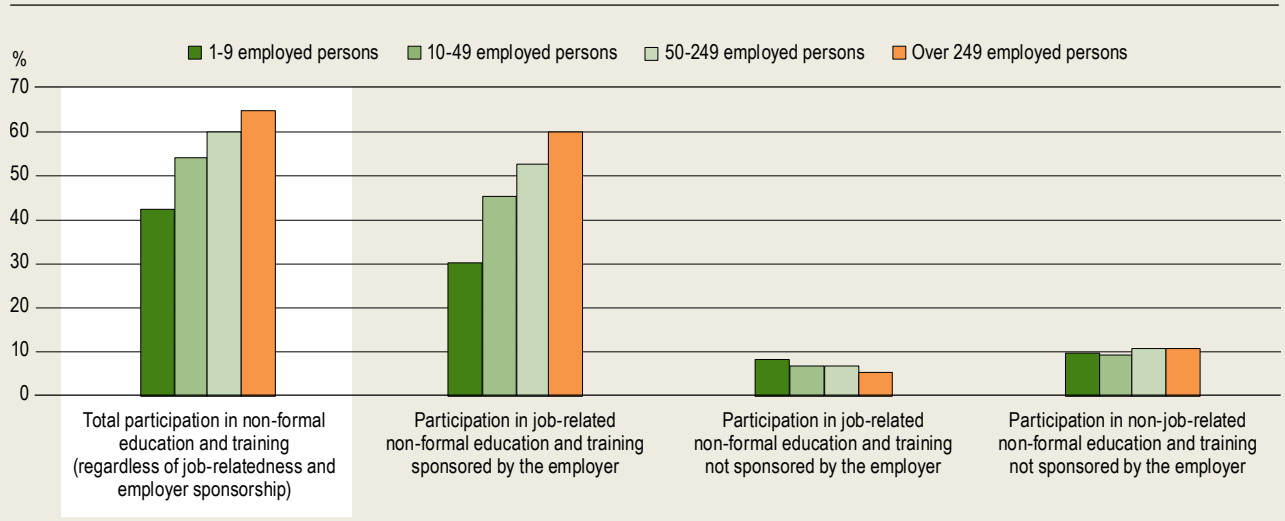
Indicator A7. To what extent do adults participate equally in education and learning?

Highlights

- The most common form of participation in adult learning is non-formal education, and most of the time it is job-related and employer-sponsored. On average across OECD countries taking part in the Adult Education Survey (AES), 44% of working adults had participated in at least one job-related and employer-sponsored non-formal training activity, but only 9% had taken part in one that was neither job-related nor sponsored by their employer.
- Large enterprises provide more training than small ones. On average across OECD countries taking part in AES, 30% of adults employed in enterprises with fewer than 10 employed persons participated in at least one non-formal job-related and employer-sponsored education and training activity. This share is twice as high (60%) among adults working in firms with over 249 employed persons.
- Large enterprises invest more of their total labour costs in training than smaller ones. On average across OECD countries participating in the Continuing Vocational Training Survey (CVTS), training costs in the form of courses represent 2.1% of total labour costs in enterprises with over 249 employed persons, 1.5% in enterprises with 50-249 employed persons, and 1.3% in enterprises with 10-49 employed persons.

Figure A7.1. Share of employed 25-64 year-olds participating in non-formal education and training, by job relatedness, employer sponsorship and size of enterprise (2016)

Adult Education Survey (AES), average for OECD countries participating in AES



Note: Total participation is not equal to the sum of the disaggregated categories because the same person can be included in more than one category.

Source: OECD (2020), Table A7.1. See *Source* section for more information and Annex 3 for notes (https://doi.org/10.1787/69096873-en).

StatLink https://doi.org/10.1787/888934163002

Context

Adult learning can play an important role in helping adults to develop and maintain key information-processing skills and acquire other knowledge and skills throughout their lives. It is crucial to provide and ensure access to organised learning opportunities for adults beyond initial formal education, especially for workers who need to adapt to changes throughout their careers (OECD, 2013[1]).

The adults already in the workforce may have to continue to fill a significant share of the jobs of the future, requiring them to learn new skills and update existing ones. With the recent COVID-19 crisis, workers in some areas have had to change their working habits, relying more than ever on technology and teleworking and requiring them to be flexible and adaptable, which in some cases has had to be accompanied by additional training.

Adult learning can also contribute to non-economic goals, such as personal fulfilment, improved health, civic participation and social inclusion. For example, during the COVID-19 lockdown, learning to use new technology may help people to stay in contact with friends and family. However, the wide variation in adult learning activities and participation among OECD countries at similar levels of economic development suggests that there are significant differences in learning cultures, in learning opportunities at work and in adult education systems (Borkowsky, 2013[2]).

Other findings

- Enterprise size has a large impact on employees' participation in job-related education and training, but when the training is not sponsored by the employer, then the size of the enterprise no longer affects participation.
- Adults are less likely to participate in formal than in non-formal education and training, but if they do, then the intensity is much higher than for non-formal education. On average across the OECD countries participating in AES, those taking part in formal education and training spend 406 hours per year on average, against only 73 hours for non-formal education and training.
- Working in the public sector is associated with greater participation than in the private sector. On average across OECD countries participating in AES, 57% of adults working in the public sector participated in at least one non-formal job-related and employer-sponsored education and training activity, compared to 40% of adults working in the private sector.
- Adults with higher educational attainment are more likely to participate. On average across OECD countries taking part in AES, 24% of 25-64 year-olds with below upper secondary education participated in at least one non-formal education and training activity in the 12 months preceding the survey. This rose to 41% for those with upper secondary or post-secondary non-tertiary education and 62% for those with a tertiary degree.

Analysis

Participation in adult learning is often motivated by the social context. People choose to invest in what they value and devote energy towards becoming more effective in what they find relevant (Wlodkowski and Ginsberg, 2017[3]). Research show that adults participate in educational and learning activities for both intellectual reasons and for the usefulness of what they learn (Dench and Regan, 2000[4]). Intellectual reasons include wanting to keep the brain active, the enjoyment of the challenge of learning new things and an interest in acquiring knowledge, while the practical reasons are more related to enhancing employment prospects and remaining competitive in the labour market. Participation in high-quality formal and non-formal professional development enables employees to update their skills to be effective workers in the 21st century global economy.

Data from the Adult Education Survey (AES) and from the Survey of Adult Skills, a product of the Programme for the International Assessment of Adult Competencies (PIAAC), show that non-formal education and training is the most common type of adult learning. On average across OECD countries taking part in AES, 44% of 25-64 year-olds participated in at least one non-formal education and training activity in the 12 months preceding the survey, compared to only 7% taking part in formal education and training. Among these countries, participation in non-formal education ranges from less than 30% in Greece, Lithuania, Poland and Turkey to more than 60% in the Netherlands and Switzerland. Among countries that only participated in the Survey of Adult Skills (PIAAC), participation in non-formal education ranges from less than 30% in Mexico and the Russian Federation to 63% in New Zealand (Table A7.5, available on line).

The data also show that most non-formal education and training is job-related and sponsored by the employer. Among employed adults, only 9% participated in any non-formal education activity that was not job-related and not sponsored by the employer while 44% participated in at least one job-related and employer-sponsored training activity (Table A7.1 and Table A7.5, available on line).

Participation of employed adults in non-formal education and training

Participation by size of enterprise

Equity in access to adult learning is a policy concern across OECD countries (OECD, 2019[5]; European Commission, 2019[6]). Low-educated and economically inactive adults are less likely to participate in education and training because they are less exposed to learning opportunities than highly educated and employed adults. But inequalities are not limited to educational attainment and employment status. They arise even among employed adults depending of the size of their enterprise. For example, there is a common pattern across OECD countries: large enterprises provide more training to their employees than small ones (Figure A7.1).

Employers have a key role to play in providing and financing job-related adult learning, but many small and medium-sized enterprises lack the capacity to offer training opportunities to their employees. These employers may therefore benefit less from training effects such as increased productivity, higher employee retention, better engagement and improved management-worker interactions. For their employees this translates into fewer opportunities to participate in adult learning and, in turn, fewer possibilities to benefit from its positive outcomes. They could be missing out on higher incomes and improved employability, improved general well-being and health, and improved engagement in community and civic activities (OECD, 2019[5]; European Commission, 2015[7]).

Figure A7.1 shows that, on average across the 26 OECD countries taking part in AES, 30% of adults employed in enterprises with under 10 employed persons participated in at least one non-formal job-related and employer-sponsored education and training activity. This share is twice as high (60%) among adults working in firms with over 249 employed persons. The largest differences are observed in Ireland, Lithuania and Turkey where the gap is more than 35 percentage points between the participation rates of adults employed in the smallest enterprises and those in enterprises with over 249 employed persons. In contrast, the gap is below 25 percentage points in the Czech Republic, Estonia, Germany, Norway and Slovenia. Across the OECD member and partner countries that only participated in the Survey of Adult Skills (PIAAC), the gap is at least 40 percentage points in Chile, Korea and Mexico and is below 30 percentage points in Japan, New Zealand and the Russian Federation (Table A7.1).

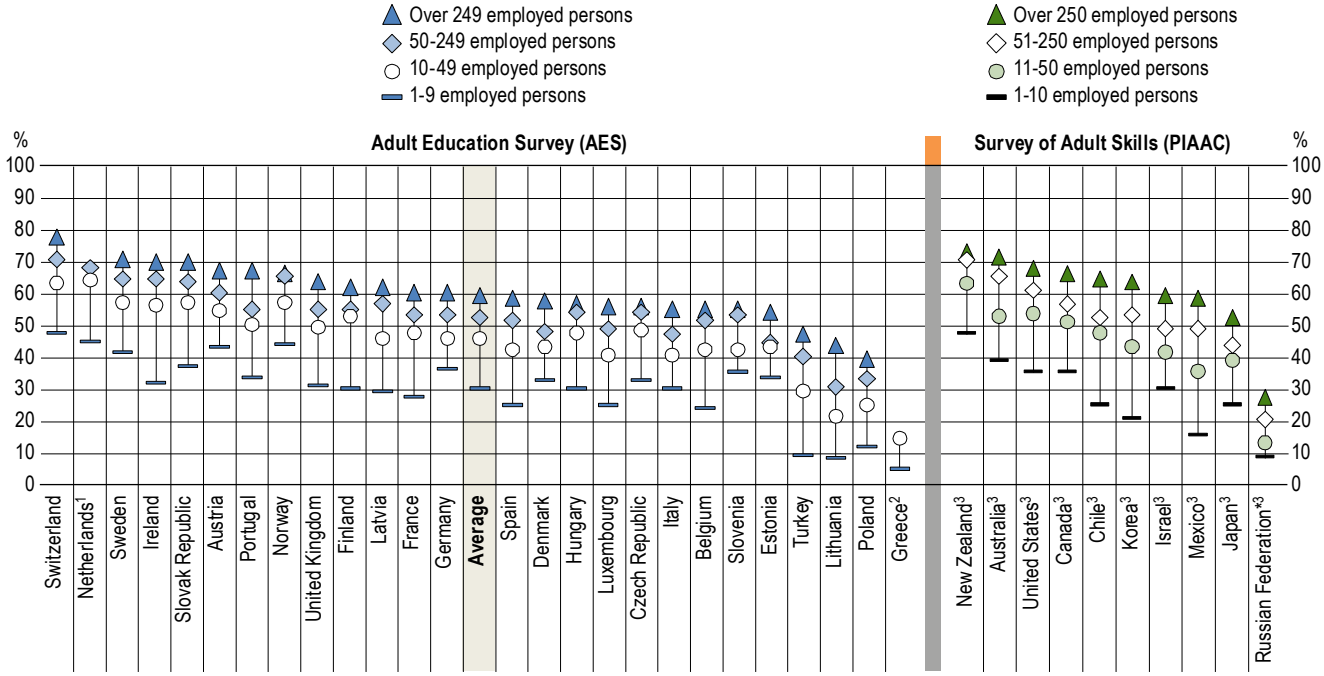
In all OECD countries, those employed in larger enterprises are more likely than those in smaller ones to participate in job-related adult learning sponsored by their employer. In contrast, when training is not sponsored by the employer, participation is much lower, regardless of the size of the enterprise. On average across the 26 OECD countries taking part in AES, about 10% of employed 25-64 year-olds participated in at least one non-job related education or training activity that was not

sponsored by their employers, regardless of the size of the enterprise they work in. This implies that the size of the enterprise has a large impact on training opportunities available to employees, but when training is not sponsored, whether it is job-related or not, then the size of the company makes almost no difference (Figure A7.1).

There is a positive relationship between the size of the enterprise (in terms of number of employees) and participation in job-related employer-sponsored non-formal education and training in all the OECD member and partner countries that participated in AES and the Survey of Adult Skills (PIAAC). However, the extent of participation varies significantly across countries. For example, adults in Switzerland working for firms with under 10 employed persons are more likely to take part in such training than those working for enterprises with over 249 employed persons in Lithuania and Poland. This also holds true in the non-European countries that participated in the Survey of Adult Skills (PIAAC): the participation among employed persons even of the smallest enterprises in New Zealand (47%) is higher than for those in the Russian Federation, even among those working for large firms (28%) (Figure A7.2).

Figure A7.2. Share of employed 25-64 year-olds participating in non-formal job-related and employer-sponsored education and training, by size of enterprise (2016)

Adult Education Survey (AES) or Survey of Adult Skills (PIAAC)



1. The category "50-249 employed persons" should be interpreted as "over 50 employed persons". The category "over 249 employed persons" is therefore missing for the Netherlands.
2. Data for the categories "50-249 employed persons" and "over 249 employed persons" have a low reliability and are therefore not presented.
3. Year of reference differs from 2016. Refer to the source table for more details.
* See note on data for the Russian Federation in the *Source* section.
Countries are ranked in descending order of the percentage of 25-64 year-olds employed in enterprises with over 249 (or 250) employed persons and participating in non-formal job-related and employer-sponsored education and training.
Source: OECD (2020), Table A7.1. See *Source* section for more information and Annex 3 for notes (https://doi.org/10.1787/69096873-en).

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In all countries participating in AES and the Survey of Adult Skills (PIAAC), except for Estonia, Lithuania, the Russian Federation and Slovenia, the largest difference in participation in job-related and employer-sponsored non-formal education and training occurs between adults working in enterprises with 1-9 employed persons and those working in enterprises with 10-49 employed persons (the categories in the Survey of Adult Skills [PIAAC] are 1-10 and 11-50 employed

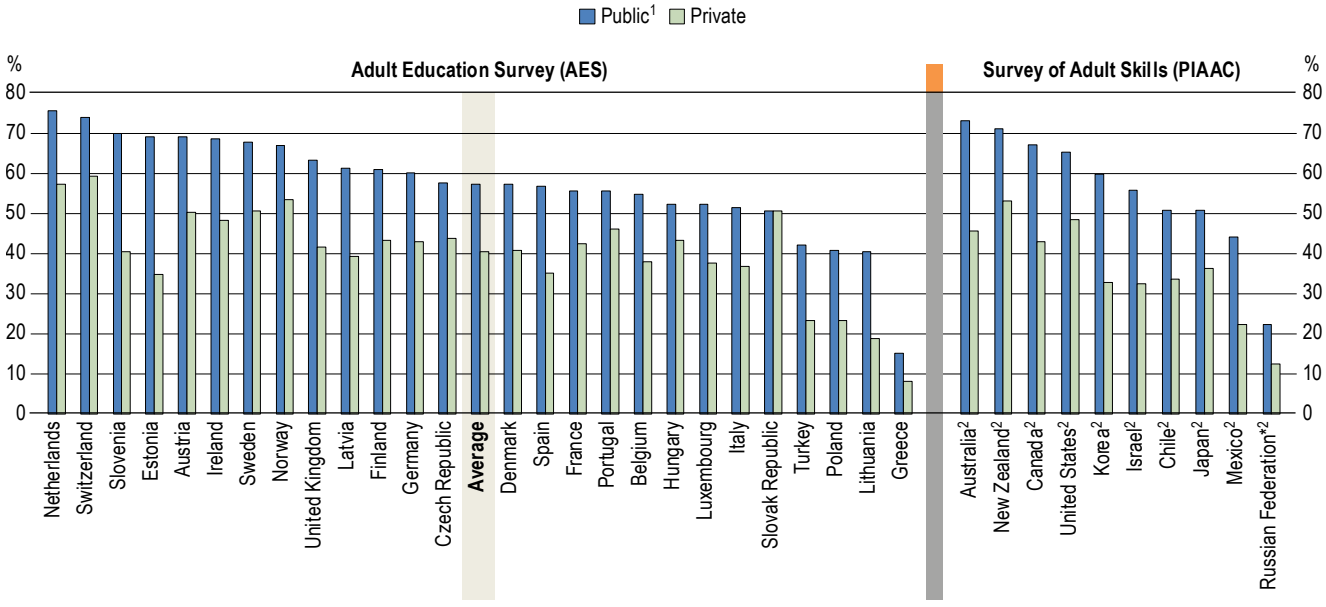
persons). On average, across OECD countries participating in AES, 30% of adults employed in enterprises with fewer than 10 employed persons took part in such activities, but the rate jumped to 45% for enterprises with 10-49 employed persons, 53% for enterprises with 50-249 employed persons, and 60% for those working in enterprises with over 249 employed persons (Figure A7.2).

A similar pattern emerges when enterprises are asked if they provide training to their staff, large firms tend to report providing training more widely than small firms. On average across OECD countries taking part in the Continuing Vocational Training Survey (CVTS), 74% of enterprises with 10-49 employed persons provide training, compared with 96% of enterprises with over 249 employed persons. There are also large differences between countries on this measure, with almost every enterprise in Latvia and Norway providing training but less than 30% of enterprises in Greece doing so (Table A7.4, available on line).

Enterprise size seems to play a more prominent role in the countries where a lower share of firms provide training. For example, in Greece, Hungary and Poland, less than 40% of enterprises with 10-49 employed persons provide training, but the share is at least 40 percentage points higher among enterprises with over 249 employed persons. In contrast, in Latvia, Norway and Sweden, the share of enterprises providing training is very high, regardless of size. In these three countries, even the smallest firms consistently provide training: over 90% of the enterprises with 10-49 employed persons provide training (Table A7.4, available on line).

Figure A7.3. Share of employed 25-64 year-olds participating in non-formal job-related and employer-sponsored education and training, by public / private sector (2016)

Adult Education Survey (AES) or Survey of Adult Skills (PIAAC)



1. For the Survey of Adult Skills (PIAAC): includes non-profit organisations.
2. Year of reference differs from 2016. Refer to the source table for more details.

* See note on data for the Russian Federation in the *Source* section.

Countries are ranked in descending order of the percentage of 25-64 year-olds employed in the public sector and participating in non-formal job-related and employer-sponsored education and training.

Source: OECD (2020), Table A7.1. See *Source* section for more information and Annex 3 for notes (https://doi.org/10.1787/69096873-en).

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Participation in the public and private sector

Working in the public sector is associated with greater participation in non-formal training than in the private sector. This could be related to different culture and governance structures in the two sectors. It could also be associated with the size of enterprises in the private sector compared with public sector employers. In all countries, the public sector employs large

numbers of staff while private firms can vary in size. On average across OECD countries participating in AES, 57% of adults working in the public sector took part at least one non-formal job-related and employer-sponsored education and training activity, compared to 40% of adults working in the private sector. This trend is observed across all OECD and member countries participating in AES and the Survey of Adult Skills (PIAAC), with the exception of the Slovak Republic where 51% of adults participated in such training, regardless of the economic sector (Figure A7.3).

The largest difference across OECD countries participating in AES are observed in Estonia and Slovenia where the participation rate of those working in the public sector is at least 29 percentage points higher than those working in the private sector. In contrast, in Greece, Hungary and the Slovak Republic, the difference is below 10 percentage points (Figure A7.3).

Participation by all adults in non-formal education and training activities by level of education

Adults with higher educational attainment are more likely to participate in non-formal education and training activities. On average across OECD countries taking part in AES, 24% of all 25-64 year-olds – regardless of whether they are working or not – with below upper secondary education participated in at least one non-formal education and training activity in the 12 months preceding the survey. The rate is 41% for those with upper secondary or post-secondary non-tertiary education and reaches 62% for those with a tertiary degree (Table A7.5, available on line).

In Austria, the Czech Republic and Switzerland the difference between adults with and without upper secondary or post-secondary non-tertiary education is at least 25 percentage points. The difference between those with a tertiary degree and those with below upper secondary education is over 20 percentage points in all OECD countries participating in AES, and reaches 50 percentage points or more in Slovenia and Switzerland (Table A7.5, available on line).

Relationship between participation rates and intensity for all adults

Non-formal education and training

Figure A7.4 depicts the association between the participation rate in non-formal education and training and the average number of instruction hours per year, for the OECD countries that participated in AES. On average, 44% of 25-64 year-olds participated in non-formal education and training, and those who did so spent an average of 73 hours on these activities. Both participation rates and the average number of hours devoted to training vary widely across countries. These differences point to different policy choices, which may explain the low correlation between the two variables. Austria is the only country where more than 55% of 25-64 year-olds participate in non-formal education and training and do so for over 80 hours per year on average. In contrast, in Lithuania, less than 30% of adults participate in non-formal education and training and for an annual average of only 42 hours (Figure A7.4).

The distribution of countries in the four quadrants in Figure A7.4 shows that there is no clear correlation between participation rates and intensity. Countries with similar participation rates exhibit large differences in average hours of participation per year. For example, the participation rates in the Czech Republic and the Slovak Republic are similar to Slovenia's, but their intensity of participation is much lower, with both countries averaging around 35 hours compared to 142 hours in Slovenia. This shows that even when countries succeed in engaging a similar share of the population in adult education and training, the amount of training undertaken could be very different (Figure A7.4).

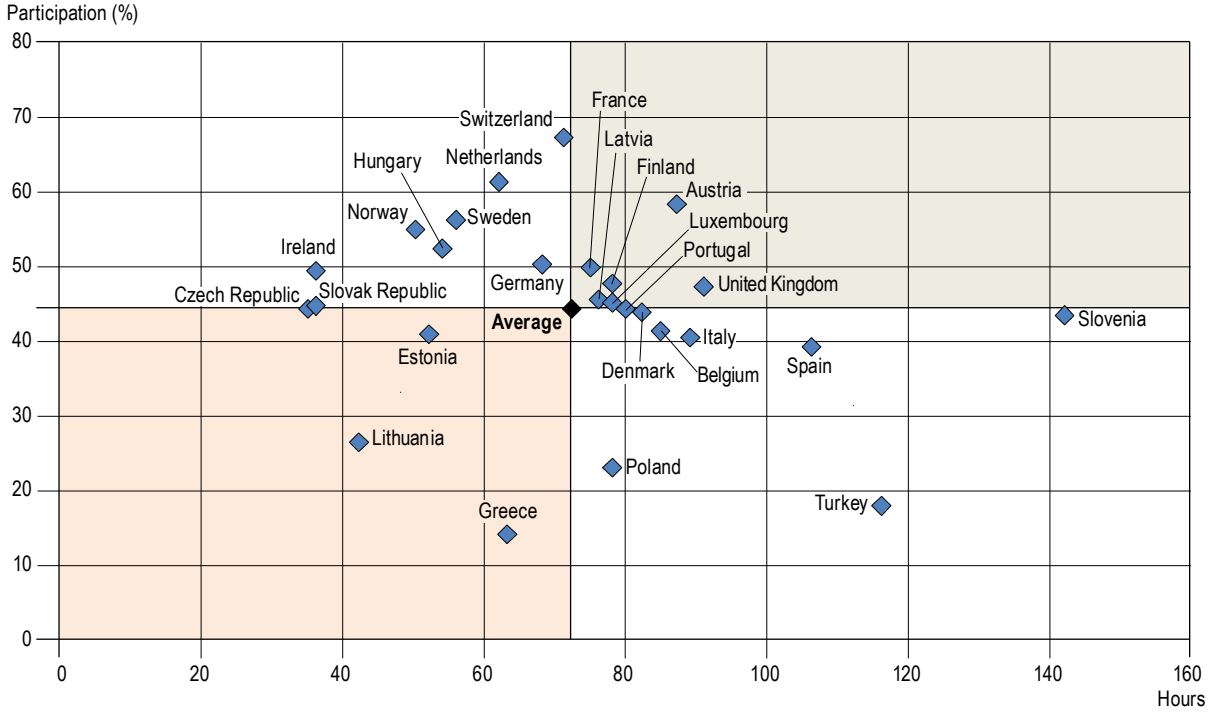
The participation gap according to educational attainment narrows when intensity of participation, in terms of hours of instruction, is considered, rather than the overall participation rate. The longest hours are not always associated with the highest educational attainment. For example, in 9 of the 26 OECD countries participating in AES, it is the adults with below upper secondary education who have the longest average instruction hours in non-formal education and training. In Denmark, the highest intensity is among those with upper secondary or post-secondary non-tertiary education, while in 15 countries the intensity is the highest among tertiary-educated adults. Therefore, for some countries, educational attainment is positively associated with participation in adult learning, but not its intensity (Table A7.2).

It should also be noted that the average number of instruction hours per year is generally much higher among OECD member and partner countries that participated in the Survey of Adult Skills (PIAAC) than among those participating in AES. For countries that participated in the Survey of Adult Skills (PIAAC), the lowest average number of instruction hours per year in non-formal education is found in Australia with 103 hours, while it reaches over 225 hours per year in Korea and Mexico (Table A7.2). In comparison, the lowest value for OECD countries participating in AES is 35 hours in the Czech Republic,

while the highest is 142 hours in Slovenia. The important differences between the two surveys is probably associated with the survey design.

Figure A7.4. Relationship between the intensity of participation (in hours) and the share of 25-64 year-olds participating in non-formal education and training (2016)

Adult Education Survey (AES)



Note: The intensity of participation (in hours) is based on 25-64 year-olds who participated in non-formal education and training activities.
Source: OECD (2020), Tables A7.2 and A7.5, available on line. See *Source* section for more information and Annex 3 for notes (https://doi.org/10.1787/69096873-en).

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Formal education and training

Participation in formal education and training is less widespread among 25-64 year-olds, but when they do participate in formal education, the intensity is much higher than for non-formal education. On average across OECD countries participating in AES, participants in formal education and training devote 406 hours per year to it, against only 73 hours for non-formal education and training (Table A7.2).

Among participating countries, adults in Germany spend the largest number of hours on formal education and training (872 hours per year). Portugal has the second highest intensity at 653 hours per year. In contrast, in Luxembourg, Norway, Spain, Turkey and the United Kingdom, adults spend less than 300 hours on formal learning; the United Kingdom ranks lowest on this measure, at only 169 hours per year (Table A7.2).

Training costs

According to a recent report of the European Commission Working Group on Adult Learning (2019[6]), adult learning has not benefited from the increased financial investment in education over the last decade, despite covering the largest group of learners. During this period, countries have increased their spending in education (see Indicators C2 and C4), but public

expenditure on adult education has lagged behind and it remains the least well-funded sector of education. This implies that providers of adult learning are forced to work with limited financial resources despite the growing need to train adults and provide them with the skills they need to remain employable and competitive in the context of the digitalisation of the economy and the fast-changing labour market.

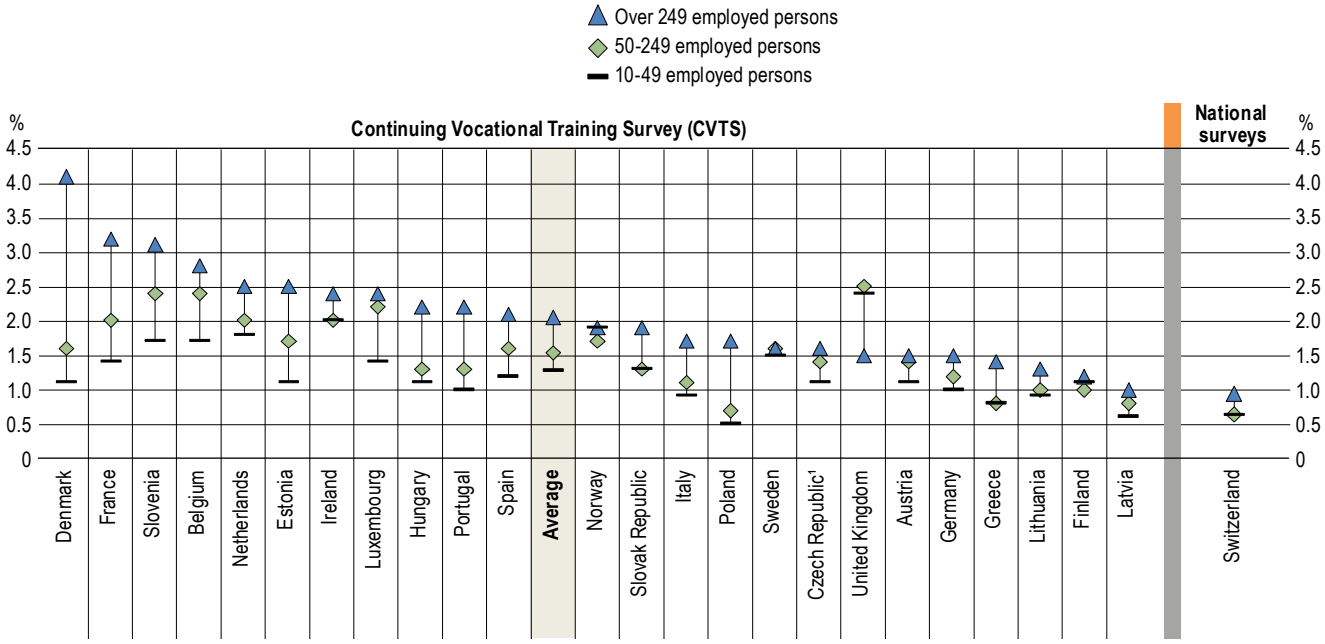
Employers are the main provider of non-formal education and therefore contribute a substantial share of the financial resources invested in adult learning (Eurostat, 2020[8]; European Commission/EACEA/Eurydice, 2015[9]). Providers of adult education can also face barriers in delivering training if they lack the resources. Employers may also be reluctant to invest in their staff if they do not see immediate benefits, or they may not be aware of funding available to train their staff. For example, in some countries, employers can receive financial support to provide training opportunities to staff who usually do not take part in company-funded activities. This could take the form of a reduction in tuition fees when enrolling employees in training courses or they can be reimbursed for education and training costs. Financial support is more widespread when it comes to training low-qualified or low-skilled staff or people who have been out of the labour market (European Commission/EACEA/Eurydice, 2015[9]).

The size of the enterprise plays an important role in the amount devoted to the provision of training. Larger enterprises will be able to spread the costs of training over a greater number of employees. Large firms are more likely to have several workers performing the same job, triggering the need to provide group training (Black, Noel and Wang, 1999[10]). In contrast, smaller enterprises have greater unit costs that may discourage this investment.

Data from the CVTS show a clear trend across European countries: large enterprises with over 249 employed persons invest a greater share of their total labour costs in training than either enterprises with 10-49 employed persons or with 50-249 employed persons. On average across the OECD countries participating in the CVTS, training costs in the form of courses made up 2.1% of the total labour costs of enterprises with over 249 employed persons, 1.5% of costs in enterprises with 50-249 employed persons, and 1.3% in enterprises with 10-49 employed persons (Figure A7.5).

Figure A7.5. Training costs as a share of total labour costs, by size of enterprise (2015)

Continuing Vocational Training Survey (CVTS) or national surveys



1. Data were mainly collected on line and via interactive PDF forms, only small part of questionnaires was distributed in a paper form. See metadata for more information at https://ec.europa.eu/eurostat/cache/metadata/EN/trng_cvt_esqrs_cz.htm.

Countries are ranked in descending order of the training costs of enterprises of over 249 employed persons as a share of their total labour costs.

Source: OECD (2020), Table A7.3. See *Source* section for more information and Annex 3 for notes (https://doi.org/10.1787/69096873-en).

StatLink https://doi.org/10.1787/888934163078

The largest difference by size of enterprise is in Denmark where enterprises with over 249 employed persons invest 4.1% of their total labour costs in training courses, compared to only 1.1% for enterprises with 10-49 employed persons. In contrast, in Finland, Norway and Sweden, training costs as a share of labour costs are almost identical, regardless of the size of the firm. The only country where the pattern is reversed is the United Kingdom where firms with fewer than 250 employed persons invest a greater percentage of their total labour costs in training courses than large enterprises (Figure A7.5).

Across most of the OECD countries participating in the CVTS, the largest difference in the share of labour costs invested in courses is between enterprises with 50-249 employed persons and those with over 249 employed persons. Out of the 24 OECD countries taking part, only 8 countries have a larger difference between enterprises with 10-49 employed persons and those with 50-249 employed persons. This supports the idea that larger firms benefit from lower costs associated with the scale of their training activities and are therefore willing to invest a larger share of their labour costs in courses (Figure A7.1).

Box A7.1. Teachers' training and preparedness to support digital learning

Teachers, even more than in many professions, need to renew their skills regularly in order to be able to innovate their teaching practices and adapt to the ultra-rapid transformations inherent in the 21st century. This is even more important in the current context, where the health crisis we are experiencing has led to the closure of schools and the extensive use of online learning to ensure pedagogical continuity. This unprecedented situation has pushed teachers to adapt very quickly, especially in countries where they do not necessarily have the pedagogical and technical skills to integrate digital tools into learning.

Data from the Teaching and Learning International Survey (TALIS) provide an interesting perspective on the training undertaken by teachers before the outbreak. They provide some measure of the frequency and intensity of teachers' continued professional development. The data show that, on average, teachers attended about four different types of continuous professional development activity in the 12 months prior to the survey, and 82% of teachers report that the professional development activities they participated in had an impact on their teaching practices (Reimers and Schleicher, 2020[11]; OECD, 2019[12]).

Most teachers participate in professional development, but not necessary in the most impactful programmes. According to teachers, the professional development programmes that have the most impact are those based on strong subject and curriculum content and which involve collaborative approaches to instruction, as well as the incorporation of active learning (OECD, 2019[12]). Perhaps because of the lack of supply, teachers do not participate that much in training which includes these elements. Teachers are most likely to participate in courses or seminars attended in person, with 76% of lower secondary teachers reporting taking part in such activity on average across OECD countries. Participation is lower for more collaborative forms of professional development, with only 44% of teachers participating in peer and/or self-observation and coaching as part of a formal school arrangement (Figure A7.6).

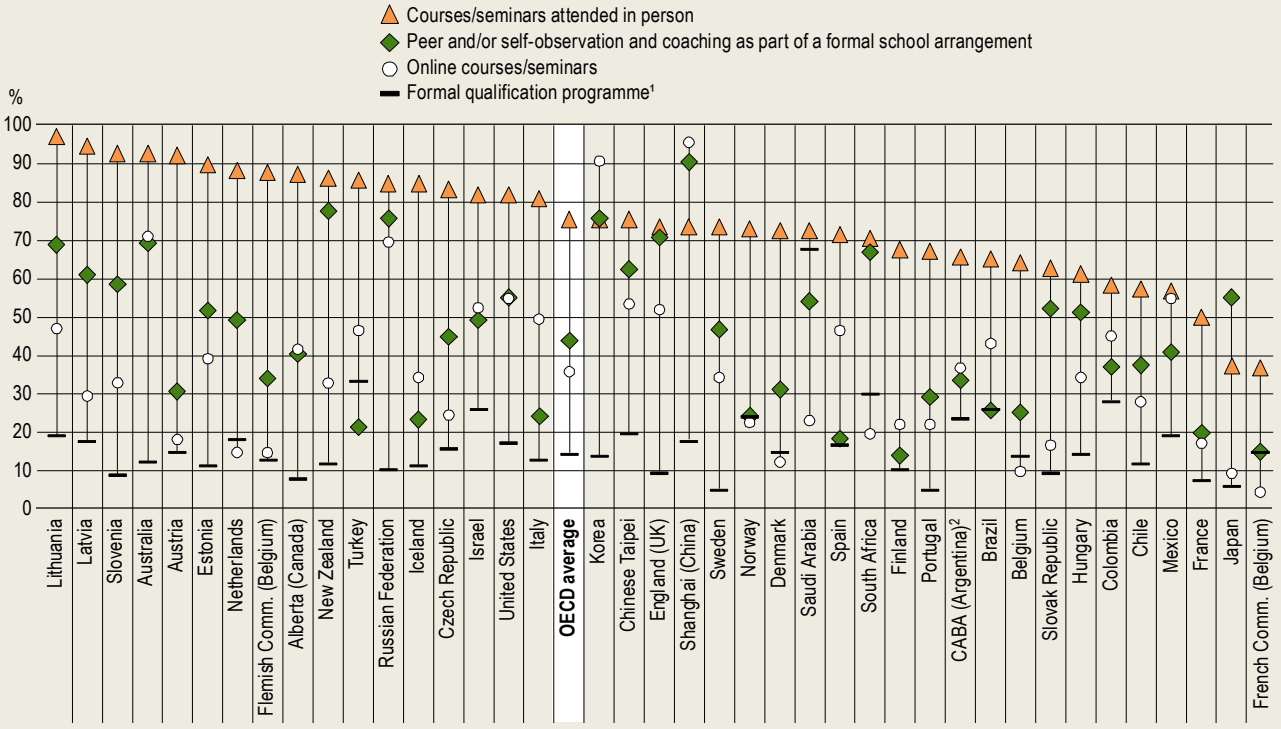
Teachers also report a high need for training in the use of information and communication technologies (ICT) for teaching, with 18% on average across OECD countries identifying this as a high training need (OECD, 2019[12]). This is the second commonest training need teachers identified, just after teaching special needs students. ICT skills are particularly important given the radical shift towards online teaching during the COVID-19 lockdown in many OECD countries. Data on professional development show that on average across OECD countries, 36% of lower secondary teachers reported participating in online courses or seminars, less than half the share participating in courses or seminars in person. This shows that not only are teachers reporting a need for ICT training, but also that they are not relying heavily on distance learning for their own professional development. Although this is the case in most countries, there are some exceptions such as Korea and Shanghai (People's Republic of China) where over 90% of teachers reported undertaking online professional development in the past year. This practice is also widespread in Australia, Chinese Taipei, England (United Kingdom), Israel, Mexico, the Russian Federation and the United States, where the share is over 50% (Figure A7.6).

The frequency with which teachers have students use ICT for projects or class work has risen in almost all countries since 2013, to the point where 53% of teachers across the OECD now report frequently or always using this practice (OECD, 2019[12]). This reflects the broader trend of digitalisation and the spread of ICT across all spheres of society. Younger teachers may be more familiar with new technologies but, surprisingly, they do not report much greater use of ICT for

students' projects than older teachers. This implies that while younger teachers may be more familiar with these tools, more experienced ones may be more at ease with other teaching practices and therefore be more willing to innovate using ICT. Across the OECD, only 56% of teachers had participated in training in the use of ICT for teaching as part of their initial education or training, and only 43% of teachers felt well or very well prepared for this element when they began teaching (Reimers and Schleicher, 2020[11]).

Figure A7.6. Percentage of lower secondary teachers who participated in selected types of professional development (2018)

Teaching and Learning International Survey (TALIS)



Note: The OECD average is the arithmetic average based on lower secondary teacher data across 31 OECD countries and economies with adjudicated data.

1. For example, a degree programme.

2. Refers to the adjudicated region of Ciudad Autónoma de Buenos Aires (CABA).

Countries and economies are ranked in descending order of the percentage of lower secondary teachers who attended courses/seminars in person in the 12 months prior to the survey.

Source: OECD (2018), TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners, https://dx.doi.org/10.1787/1d0bc92a-en, Web table 1.5.7. See *Source* section for more information and Annex 3 for notes (https://doi.org/10.1787/69096873-en).

StatLink https://doi.org/10.1787/888934163097

Of all the stages of a teacher's career, their first working years are those that merit the greatest support and attention. TALIS data show that teachers in their early careers tend to work in more challenging schools, and 22% of them report that they would like to change to another school if that were possible (OECD, 2019[12]). Novice teachers also have less confidence in their ability to teach, particularly in their classroom management skills and their capacity to use a wide range of effective instructional practices. Induction to teaching and mentoring can support teachers who are new to a school or the profession. But despite empirical evidence showing that teachers' participation in induction and mentoring is beneficial to student learning, and the fact that school principals generally consider mentoring to be important for supporting less experienced teachers, induction and mentoring are not yet commonplace. On average, 51% of novice teachers report not having participated in any formal or informal induction at their current school, and only 22% have an assigned mentor (Reimers and Schleicher, 2020[11]).

Definitions

Adults refer to 25-64 year-olds.

Adult education and learning: **Formal education** is planned education provided in the system of schools, colleges, universities and other formal educational institutions that normally constitutes a continuous "ladder" of full-time education for children and young people. The providers may be public or private. **Non-formal education** is sustained educational activity that does not correspond exactly to the definition of formal education. Non-formal education may take place both within and outside educational institutions and cater to individuals of all ages. Depending on country contexts, it may cover education programmes in adult literacy, basic education for out-of-school children, life skills, work skills and general culture.

Economic sector refers to the distinction between public and private sector. **Public sector** is a constructed measure in Adult Education Survey (AES) while the Survey of Adult Skills (PIAAC) uses three categories in its questionnaire: public sector, private sector and non-profit organisation. The public sector for AES data refer to NACE sectors O, P and Q. The non-profit organisation category was merged with the public sector category for the Survey of Adult Skills (PIAAC). The **private sector** is also a constructed measure in AES while the Survey of Adult Skills (PIAAC) uses this specific term. The private sector for AES data refer to NACE sectors B to N, R and S (for a description of NACE sectors, see https://ec.europa.eu/eurostat/ramon).

Employer-sponsored education: Employer support can be offered in the form of time (i.e. educational activities that take place fully or partly during paid working hours), or financial support (giving grants to employees to participate in educational activities).

Job-related education and training: Taking part in training activity in order to obtain knowledge and/or learn new skills needed for a current or future job, to increase earnings, to improve job and/or career opportunities in a current or another field and generally to improve opportunities for advancement and promotion.

Levels of education: See the *Reader's Guide* at the beginning of this publication for a presentation of all ISCED 2011 levels.

The previous classification, ISCED-97, is used for the analyses based on the Survey of Adult Skills (PIAAC): **Below upper secondary** corresponds to ISCED-97 levels 0, 1, 2 and 3C short programmes; **upper secondary or post-secondary non-tertiary** corresponds to ISCED-97 levels 3A, 3B, 3C long programmes and level 4; and **tertiary** corresponds to ISCED-97 levels 5A, 5B and 6.

Methodology

Calculations for data based Adult Education Survey (AES) can be found at: https://circabc.europa.eu/ui/group/d14c857a-601d-438a-b878-4b4cebd0e10f/library/c28a2e5b-ecdf-4b07-ac2f-f3811d032295/details.

For data from the Survey of Adult Skills (PIAAC), the observations based on a numerator with fewer than 5 observations or on a denominator with fewer than 30 observations times the number of categories have been replaced by "c" in the tables.

Source

Tables A7.1, A7.2 and A7.5 on adult education and training are based on:

- Adult Education Survey (AES) for European OECD member countries.
- The OECD Programme for the International Assessment of Adult Competencies (the Survey of Adult Skills [PIAAC]) for: Australia, Canada, Chile, Israel, Japan, Korea, Mexico, New Zealand, the Russian Federation and the United States.

Table A7.3 and Table A7.4 are based on the Continuing Vocational Training Survey (CVTS) for European countries.

Note regarding data from the Russian Federation in the Survey of Adult Skills (PIAAC)

The sample for the Russian Federation does not include the population of the Moscow municipal area. The data published, therefore, do not represent the entire resident population aged 16-65 in the Russian Federation but rather the population of

the Russian Federation excluding the population residing in the Moscow municipal area. More detailed information regarding the data from the Russian Federation as well as that of other countries can be found in the *Technical Report of the Survey of Adult Skills*, Second Edition (OECD, 2016[13]).

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Indicator A7 Tables

Cut-off date for the data: 19 July 2020. Any updates on data can be found on line at http://dx.doi.org/10.1787/eag-data-en. More breakdowns can also be found at http://stats.oecd.org/, Education at a Glance Database.

StatLink: https://doi.org/10.1787/888934162926

Table A7.1. Share of employed adults participating in non-formal education and training, by size and sector of enterprise, job-relatedness and employer sponsorship (2016)

Adult Education Survey (AES) or Survey of Adult Skills (PIAAC), employed 25-64 year-olds

		Adult Education Survey (AES)						
		Total participation in non-formal education and training (regardless of job-relatedness and employer sponsorship)						
			Size of enterprise				Economic sector	
		Total	1-9 employed persons	10-49 employed persons	50-249 employed persons	Over 249 employed persons	Private	Public
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
OECD	Countries							
	Austria	67	60	67	69	77	62	82
	Belgium	51	39	50	58	62	46	66
	Czech Republic	53	43	54	59	60	50	64
	Denmark	51	40	49	53	61	46	61
	Estonia	48	41	50	49	59	41	76
	Finland	56	44	59	61	68	51	70
	France	58	47	59	64	70	56	68
	Germany	56	50	54	60	66	52	69
	Greece	19	15	27	27 r	30 r	18	29
	Hungary	66	50	67	75	76	64	72
	Ireland	59	40	63	69	75	55	76
	Italy	52	45	52	59	62	48	66
	Latvia	54	43	56	63	66	49	75
	Lithuania	33	22	33	42	52	28	56
	Luxembourg	53	41	52	59	64	48	66
	Netherlands[1]	72	59	73	76	m	66	84
	Norway	65	54	64	71	72	61	72
	Poland	31	20	30	39	44	29	48
	Portugal	54	42	56	63	71	52	65
	Slovak Republic	57	46	62	69	72	56	61
	Slovenia	55	49	49	60	61	49	78
	Spain	47	35	50	59	66	43	67
	Sweden	63	51	64	69	77	58	73
	Switzerland	72	64	73	78	84	70	84
	Turkey	28	13	34	45	52	27	47
	United Kingdom	55	41	53	60	68	49	69
	Average	53	42	54	60	65	49	67

		Survey of Adult Skills (PIAAC)						
		Total participation in non-formal education and training (regardless of job-relatedness and employer sponsorship)						
			Size of enterprise				Economic sector	
		Total	1-10 employed persons	11-50 employed persons	51-250 employed persons	Over 250 employed persons	Private	Public[2]
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
OECD	Countries							
	Australia[3]	65	49	59	72	81	54	82
	Canada[3]	64	48	63	67	77	54	80
	Chile[4]	55	38	60	62	76	47	67
	Israel[4]	57	42	56	62	71	44	72
	Japan[3]	49	36	48	53	63	46	63
	Korea[3]	59	39	60	72	84	51	84
	Mexico[5]	42	24	46	57	67	31	57
	New Zealand[4]	74	63	74	81	85	65	85
	United States[5]	68	52	61	75	78	60	79
Partner	Russian Federation*[3]	23	14	19	27	33	17	29

Note: Participation in non-formal education and training during previous 12 months. Additional columns showing data for participation in "job-related non-formal education and training sponsored by the employer", "job-related non-formal education and training not sponsored by the employer", "not job-related non-formal education and training sponsored by the employer", and "not job-related non-formal education and training not sponsored by the employer" are available for consultation on line (see StatLink below). The average differs from the one published by Eurostat as this is an unweighted average and the country coverage is different. For data from AES, total participation is not equal to the sum of the disaggregated categories because the same person can be included in more than one category. This is not the case for data from the Survey of Adult Skills (PIAAC).

1. The category "50-249 employed persons" should be interpreted as "over 50 employed persons". The category "over 249 employed persons" is therefore missing for the Netherlands.
2. Includes non-profit organisations.
3. Year of reference 2012.
4. Year of reference 2015.
5. Year of reference 2017.

* See note on data for the Russian Federation in the *Source* section.

Source: OECD (2020). See *Source* section for more information and Annex 3 for notes (https://doi.org/10.1787/69096873-en).

Please refer to the Reader's Guide for information concerning symbols for missing data and abbreviations.

StatLink https://doi.org/10.1787/888934162945

Table A7.2. Annual hours of participation in formal and/or non-formal education and training, by educational attainment (2016)

Adult Education Survey (AES) or Survey of Adult Skills (PIAAC), 25-64 year-olds who participated in formal and/or non-formal education and training activities

		Adult Education Survey (AES)											
		Total (all levels of educational attainment)			Below upper secondary			Upper secondary or post-secondary non-tertiary			Tertiary		
		Formal and/or non-formal education and training	Formal education and training	Non-formal education and training	Formal and/or non-formal education and training	Formal education and training	Non-formal education and training	Formal and/or non-formal education and training	Formal education and training	Non-formal education and training	Formal and/or non-formal education and training	Formal education and training	Non-formal education and training
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD	**Countries**												
	Austria	132	457	87	81	c	78	103	531	69	175	426	109
	Belgium	112	325	85	142	c	123	137	409	102	94	283	70
	Czech Republic	51	338	35	40	c	34	36	271	29	84	368	47
	Denmark	167	370	82	186	498 r	74	185	446	91	135	259	75
	Estonia	113	507	52	71	c	52	113	534	45	118	489	57
	Finland	156	342	78	281	508 r	139	170	364	72	115	251	70
	France	106	519	75	86	c	81	100	522	75	116	525	75
	Germany	124	872	68	128	c	80	123	978	64	126	747	72
	Greece	141	468	63	169 r	c	56 r	111	519 r	52	161	432	72
	Hungary	89	322	54	65	425 r	23	58	263	34	155	366	101
	Ireland	86	329	36	56	267 r	39	82	384	38	92	314	35
	Italy	115	394	89	60	c	60	120	419	85	142	363	114
	Latvia	109	375	76	130	c	95	90	351	60	121	365	87
	Lithuania	58	414 r	42	c	c	c	54	c	35	60	391 r	45
	Luxembourg	125	298	78	83	197 r	58	114	275	80	138	319	80
	Netherlands	89	328	62	73	c	60	81	360 r	57	95	325	65
	Norway	82	224	50	104	c	64	65	241	41	88	208	52
	Poland	145	464	78	218	c	51 r	129	541	67	154	419	86
	Portugal	133	653	80	88	478	63	147	674	89	171	734	90
	Slovak Republic	49	499 r	36	c	c	c	36	c	29	73	537 r	50
	Slovenia	180	375	142	55	c	45	139	305	111	237	441	185
	Spain	148	284	106	111	280	90	136	290	97	168	283	116
	Sweden	133	462	56	201	600 r	78	98	460	47	149	423	60
	Switzerland	129	532	71	112	c	78	103	518	57	156	538	84
	Turkey	154	229	116	135	106	133	171	286	113	160	274	103
	United Kingdom	121	169	91	51	55 r	48	126	171	94	131	185	98
	Average	117	406	73	114	m	71	109	421	67	131	395	81

		Survey of Adult Skills (PIAAC)											
		Total (all levels of educational attainment)			Below upper secondary			Upper secondary or post-secondary non-tertiary			Tertiary		
		Formal and/or non-formal education and training	Formal education and training	Non-formal education and training	Formal and/or non-formal education and training	Formal education and training	Non-formal education and training	Formal and/or non-formal education and training	Formal education and training	Non-formal education and training	Formal and/or non-formal education and training	Formal education and training	Non-formal education and training
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD	**Countries**												
	Australia[1]	m	m	103	m	m	84	m	m	108	m	m	106
	Canada[1]	m	m	119	m	m	78	m	m	114	m	m	125
	Chile[2]	m	m	121	m	m	77	m	m	112	m	m	145
	Israel[2]	m	m	135	m	m	114	m	m	126	m	m	138
	Japan[1]	m	m	148	m	m	136	m	m	142	m	m	152
	Korea[1]	m	m	248	m	m	177	m	m	226	m	m	271
	Mexico[3]	m	m	226	m	m	187	m	m	236	m	m	260
	New Zealand[2]	m	m	113	m	m	115	m	m	99	m	m	118
	United States[3]	m	m	140	m	m	209	m	m	167	m	m	120
Partner	**Russian Federation***[1]	m	m	117	m	m	132	m	m	137	m	m	113

Note: Participation in formal and/or non-formal education and training during previous 12 months. Note that the average differs from the one published by Eurostat as this is an unweighted average and the country coverage is different.

1. Year of reference 2012.
2. Year of reference 2015.
3. Year of reference 2017.

* See note on data for the Russian Federation in the *Source* section.

Source: OECD (2020). See *Source* section for more information and Annex 3 for notes (https://doi.org/10.1787/69096873-en).

Please refer to the Reader's Guide for information concerning symbols for missing data and abbreviations.

StatLink https://doi.org/10.1787/888934162964

Table A7.3. Annual training costs, by size of enterprise (2015)

Continuing Vocational Training Survey (CVTS) or national surveys, costs as reported by enterprises

		Continuing Vocational Training Survey (CVTS)							
		Training costs per participant in equivalent USD converted using PPP for GDP				Training costs as a share of total labour costs			
		Total	10-49 employed persons	50-249 employed persons	Over 249 employed persons	Total	10-49 employed persons	50-249 employed persons	Over 249 employed persons
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
OECD	Countries								
	Austria	1 709	1 515	1 943	1 688	1.3	1.1	1.4	1.5
	Belgium	3 251	2 414	3 201	3 581	2.4	1.7	2.4	2.8
	Czech Republić	600	367	544	743	1.5	1.1	1.4	1.6
	Denmark	4 811	2 266	2 937	6 556	2.7	1.1	1.6	4.1
	Estonia	1 690	1 503	1 965	1 624	1.8	1.1	1.7	2.5
	Finland	1 385	1 419	1 296	1 414	1.1	1.1	1.0	1.2
	France	2 896	2 251	2 573	3 132	2.5	1.4	2.0	3.2
	Germany	2 314	1 359	1 665	2 748	1.4	1.0	1.2	1.5
	Greece	1 724	1 353	1 632	1 803	1.1	0.8	0.8	1.4
	Hungary	2 438	1 251	2 011	2 842	1.8	1.1	1.3	2.2
	Ireland	2 331	2 467	2 204	2 332	2.2	2.0	2.0	2.4
	Italy	1 556	1 337	1 461	1 678	1.3	0.9	1.1	1.7
	Latvia	736	657	754	758	0.8	0.6	0.8	1.0
	Lithuania	936	1 153	938	853	1.1	0.9	1.0	1.3
	Luxembourg	2 086	2 094	2 140	2 056	2.1	1.4	2.2	2.4
	Netherlands	2 660	2 422	2 520	2 785	2.3	1.8	2.0	2.5
	Norway	1 887	1 624	1 581	2 277	1.8	1.9	1.7	1.9
	Poland	1 007	699	786	1 111	1.2	0.5	0.7	1.7
	Portugal	968	807	876	1 115	1.5	1.0	1.3	2.2
	Slovak Republic	918	899	822	965	1.6	1.3	1.3	1.9
	Slovenia	1 983	1 858	1 966	2 042	2.5	1.7	2.4	3.1
	Spain	1 600	1 220	1 630	1 729	1.8	1.2	1.6	2.1
	Sweden	1 771	1 755	1 854	1 739	1.6	1.5	1.6	1.6
	United Kingdom	985	1 201	1 222	843	1.8	2.4	2.5	1.5
	Average	1 843	1 496	1 688	2 017	1.7	1.3	1.5	2.1

		National surveys							
		Training costs per participant in equivalent USD converted using PPP for GDP				Training costs as a share of total labour costs			
		Total	10-49 employed persons	50-249 employed persons	Over 249 employed persons	Total	10-49 employed persons	50-249 employed persons	Over 249 employed persons
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
OECD	Countries								
	Switzerland	1 320	1 256	1 357	1 331	0.8	0.6	0.6	0.9

Note: Training costs during previous 12 months. Note that the average differs from the one published by Eurostat as this is an unweighted average and the country coverage is different.

1. Data were mainly collected on line and via interactive PDF forms, only small part of questionnaires was distributed in a paper form. See metadata for more information at https://ec.europa.eu/eurostat/cache/metadata/EN/trng_cvt_esqrs_cz.htm.

* See note on data for the Russian Federation in the *Source* section.

Source: OECD (2020). See Source section for more information and Annex 3 for notes (https://doi.org/10.1787/69096873-en).

Please refer to the Reader's Guide for information concerning symbols for missing data and abbreviations.

StatLink https://doi.org/10.1787/888934162983