This article is part of a Eurostat online publication that focuses on Quality of life indicators, providing recent statistics for the European Union (EU). The publication presents a detailed view of various dimensions that can form the basis for a more profound analysis of the quality of life, complementing gross domestic product (GDP) which has traditionally been used to provide a general overview of economic and social developments.

The focus of this article is the fourth dimension — education — of the nine quality of life indicators dimensions that form part of a framework, endorsed by an expert group on quality of life indicators. Broadly speaking, education refers to any act or experience that has a formative effect on an individual’s mind, character, or physical ability. Education is the process by which society — through schools, colleges, universities and other institutions — deliberately transmits its cultural heritage and its accumulated knowledge, values and skills to each generation.

Education in the context of quality of life

In knowledge-based economies, education underpins economic growth, as it is the main driver of technological innovation and high productivity. Moreover, as a means to transmit knowledge through generations, education is the basis of human civilisation and has a major impact on the quality of life of individuals. A lack of skills and competencies limits access to the labour market and economic prosperity, increases the risk of social exclusion and poverty, and may hinder a full participation in civic and political affairs. Education enhances people’s understanding of the world they live in, and hence the perception of their ability to influence it.

From a statistical perspective, education is a complex and challenging subject, sometimes difficult to measure. Eurostat’s publication Statistical approaches to the measurement of skills — 2016 edition quotes a definition of human capital from the Organisation for Economic Co-operation and Development as ‘the knowledge, skills, competencies and other attributes embodied in individuals that are employed in the creation of individual, social and economic well-being’. It goes on to describe skills as ‘the ability to apply knowledge and use know-how to complete tasks and solve problems’.

The most common approach used for measuring skills is the indirect approach, where qualifications are used to measure skills supply. These data only certify skills developed in specific education programmes and do not cover skills developed through other means, such as on-the-job training or participation in social activities. One of the difficulties in statistically assessing educational outcomes is the complexity of measuring soft skills, acquired by individuals through social interaction, as well as the knowledge attained outside of the formal educational system (for example, through reading as a leisure pursuit or cultural activities). Moreover, the quality of formal qualifications (such as tertiary education degrees) is not always of the same level, especially when making comparisons across time or between and within countries. Furthermore, data on educational attainment relate to achievements at a specific point in time, which become less representative of current skill levels as time passes. It is therefore important to complement information on formal education attainment and training with information on participation in non-formal educational activities and participation in lifelong learning. As such the overall level of education may be measured through data on formal education attainment and training, as
well as statistics related to non-formal or informal educational activities (an increasingly important aspect of
the educational process).

As a complement, a direct approach to measuring skills can be followed, either through assessment or self-
reporting of abilities. Examples are assessments from the Programme for the International Assessment of Adult
Competencies (PIAAC) and self-reported data concerning the command of foreign languages and the use of
information technology.

**About one third of those aged 25-64 had a tertiary degree in 2018**

In 2018, close to one third (32.3 %) of the EU-28 population aged 25-64 years had a tertiary level of educational
attainment, while almost half (45.8 %) had completed upper secondary or post-secondary non-tertiary education
(see Figure 1). The proportion of people aged 25-64 with a tertiary level of educational attainment increased
in all EU Member States between 2008 and 2018.

Higher levels of educational attainment are generally linked to better occupational prospects and higher in-
come, hence having a positive effect on a person’s quality of life. People who have completed tertiary education
improve their possibilities to secure a job: in the EU-28 the unemployment rate was higher for low levels of edu-
cational attainment and lower for high levels of educational attainment. Based on data on unemployment rates
by educational attainment level, in the EU-28, people aged 15-74 years with a low level of education in 2018 were
more than three times as likely to be unemployed (13.3 %) as those with a high level of education (4.1 %); the
ratio between the unemployment rates for people with high and low levels of education was particularly high in
Slovakia, Czechia, Hungary, Bulgaria and Lithuania, while it was relatively low in Cyprus, Portugal and Greece.

When interpreting education levels for the whole of the population, it should be borne in mind that this includes
older generations who may have been raised in times when formal education systems were quite different, for
example with shorter compulsory education periods. Equally, levels of educational attainment within national
populations reflect not only the outcomes of local education systems but also the educational attainment of
immigrants.

**Figure 1: Distribution of the population aged 25-64 years by level of educational attainment, 2018(%)**

| EU-28 | Ireland | Italy | Cyprus | Sweden | Luxembourg | United Kingdom | Belgium | Spain | France | Germany | Austria | Slovenia | Greece | Poland | Italy | Bulgaria | Malta | Croatia | Hungary | Portugal | Slovakia | Czechia | Poland | Germany | Norway | Switzerland | Iceland | Montenegro | North Macedonia | Turkey |
|-------|---------|-------|--------|--------|-----------|-------------|---------|-------|--------|---------|--------|---------|-------|-------|-------|---------|-------|----------|---------|---------|---------|--------|-----------|---------|-----------|-----------|---------|
| Low (ISCED levels 0-2) | Medium (ISCED levels 3-4) | High (ISCED levels 5-8) |

Note: ranked on high (ISCED levels 5-8). Source: Eurostat (online data code: edat_lfs_9903)

The various education levels leading up to lower secondary education (mainly pre-primary, primary and lower
secondary education) form the main part of compulsory schooling in most EU Member States. In five southern
Member States, in 2018 more than a quarter of the population aged 25-64 years had completed at most lower
secondary education: 26.4 % in Greece, 38.3 % in Italy, 39.9 % in Spain, 46.7 % in Malta and 50.2 % in Portugal.
While southern Member States tended to occupy one end of the ranking, the Member States with the lowest shares
of people with at most lower secondary education were, with the exception of Finland, all in eastern parts

Quality of life indicators - education 2
of the EU or the \textit{Baltic Member States} : in Lithuania, Czechia, Poland, Slovakia and Latvia, less than 1 in 10 of the population aged 25-64 were in this category, with the next lowest shares in Finland, Estonia and Slovenia.

The reverse situation can be observed for the share of the population with a medium level of education, with the highest shares generally in eastern EU Member States — Czechia, Slovakia, Poland and Romania, all reporting shares of at least 60.0 \% — and the lowest in southern Member States, below one quarter in Spain and Portugal.

The EU Member States with the highest proportions of people aged 25-64 with a tertiary level of educational attainment in 2018 were mainly in western or northern Europe, although a high share was also observed in Cyprus: at least two fifths of the population had completed tertiary studies in Ireland, Finland, Cyprus, Luxembourg, Sweden, the United Kingdom, Lithuania, Estonia and Belgium and this was also the case in the three \textit{EFTA} countries shown in Figure 1. The lowest proportions — below one third — were in eastern and southern Member States, as well as in Germany and Austria; the lowest proportions of all were in Italy and Romania where less than one fifth of the population had completed tertiary studies, and this was also the case in the \textit{candidate country} Turkey.

Figure 2 focuses on the proportion of people aged 25-64 with a tertiary level of educational attainment, showing how this changed between 2008 and 2018. In the EU-28, this share increased 8.3 \textit{percentage points}, from less than a quarter (24.2 \%) to close to one third (32.5 \%). The smallest and largest increases were in two western EU Member States that had relatively low shares in 2018: in Germany the share increased by 3.7 percentage points from 25.4 \% in 2008 to 29.1 \% in 2018 while in Luxembourg it increased 16.4 percentage points from 27.7 \% in 2008 to 44.1 \% in 2018.

\textbf{Figure 2: Proportion of the population aged 25-64 years with a tertiary level of educational attainment, 2008 and 2018(\%)} Source: Eurostat (edat_lfs_9903)

Over 90 \% of 3-year-olds in early childhood education

Early childhood is the stage where education can most effectively influence the development of children and help reverse disadvantage. Early childhood education is typically designed with a holistic approach to support children’s early cognitive, physical, social and emotional development and introduce young children to organised instruction outside of the family context. Importantly, it comprises an intentional education component (and not just care). Early childhood education is made up of two parts: early childhood educational development, designed for children up to two years of age and pre-primary education, designed for children from the age of three years to the start of primary education.

A number of factors concerning pre-primary education have been linked to higher performance later during education, including the length of attendance of pre-primary education, smaller pupil-to-teacher ratios in pre-primary education, and higher public expenditure per child at the pre-primary level. As such, enrolling pupils
in good quality early childhood education may mitigate social inequalities and promote better overall student outcomes.

Across the EU-28 as a whole, 91% of three year-olds were in early childhood education in 2017 (see Figure 3). In seventeen EU Member States at least four fifths of three year-olds were in early childhood education, with this share falling below 70% in Luxembourg, Romania, Slovakia, Poland and Croatia, and being of 30% in Greece.

![Graph](https://example.com/graph.png)

Figure 3: Pupils in early childhood education as a percentage of three year-olds, 2017(%)Source: Eurostat (educ_uoe_enrp07, educ_uoe_enrp02 and demo_gspn)

The highest ratios of enrolments of three year-olds in early childhood education were observed in the United Kingdom and France (100%) and Belgium (98%). Most western and northern EU Member States reported high ratios, the exceptions being Austria and Finland. Eastern Member States generally reported relatively low ratios, although Hungary and Slovenia had ratios over 80%. For the southern Member States there was no clear pattern as this ratio was high in Spain and Italy (both over 90%), somewhat lower in Malta (90%) and Portugal (83%), but considerably lower in Cyprus and especially Greece.

Among the EFTA countries, the shares of three year-olds in early childhood education in Iceland and Norway were very high in 2017, in line with the percentages recorded for most northern EU Member States, but the rate was very low (2%) in Switzerland. Among the four candidate countries for which data are available, the patterns varied: the highest rate being of 98% in Serbia and the lowest - 10% in Turkey.

**Early leavers from education and training: thirteen countries already reached their national targets**

Reducing the rate of early leavers from education and training remains a challenge for several EU Member States, notably in Romania, Malta, Italy and Spain, each of which recorded an early leavers’ rate in 2018 that was still well above their 2020 national target.
Figure 1 presented information on the distribution of the population according to their level of educational attainment. The main influence on this is the age at which young people leave formal education, whether at the end of compulsory education, after low secondary school (which normally but not always finishes at a later age than compulsory education), or after undertaking upper secondary education. The EU-28 has set a target to reduce the rate of early leavers from education and training below 10.0% by 2020. The term early leavers generally refers to persons aged 18 to 24 years who had finished no more than a lower secondary education and were not involved in further education or training; their number can be expressed as a percentage of the total population aged 18 to 24 years. In setting the 2020 headline target, the EU identified early leaving from education and training as an obstacle to economic growth and employment, since on one hand it hampers productivity and competitiveness and on the other fuels poverty and social exclusion. As well as the overall headline target of 10.0% for the EU-28, all but one (the United Kingdom) of the EU Member States set a national target, taking account of their particular circumstances.

The EU-28 average rate of early leavers from education and training in 2018 was 10.6%, just above the EU headline target of 10.0%. There were eleven EU Member States which reported rates above the headline target, ranging from just above the target in Denmark and Germany to more than seven percentage points above it in Malta and Spain. The challenge of reducing the rate of early leavers from education and training below national targets fixed for 2020 remains high in several EU Member States, as can be seen in Figure 4. In Malta, the rate of early leavers was in 2018 7.5 percentage points above the national target, and in Romania the gap was still of 5.1 percentage points. In Spain, Hungary, Sweden and Slovakia, the gap was in 2018 still above two percentage points. But in thirteen Member States, the percentage of early leavers from education and training were in 2018 still below their national targets for 2020, with the largest 'positive gap' observed in Greece, Lithuania, Luxembourg and Ireland.

Fig. 4 provides an overview of the proportion of early leavers from education and training recorded in 2018 in the various countries and their respective national targets, with the blue horizontal line representing the EU 2020 headline target.

Figure 4: Proportion of early leavers from education and training, 2018(% of the population aged 18-24 years)Source: Eurostat (edat_lfse_14)
NEETs: young people neither in employment nor in education and training

NEETs exceeded 15.0% in several Member States in southern and eastern parts of the EU

Some young people (aged 18-24 years) in the EU-28 are neither in employment nor in education or training, a situation referred to as NEET. The failure to acquire knowledge and occupational skills and periods of absence from the labour market have been shown to undermine the future prospects of young people. The NEETs indicator shows the share of young persons aged 18 to 24 years who were not employed and were not involved in further education or training. In 2018, 13.7% of people aged between 18 and 24 years in the EU-28 were in this category. This situation was particularly common (over 15.0%) in eight EU Member States, mostly situated in southern and eastern parts of the EU, but also including France (see Map 1). The highest shares — in all cases where more than one in five young people were neither in employment nor in education and training — were in Italy (24.9%) and Greece (20.0%). However, not all southern and eastern Member States reported high NEET shares, as Czechia (7.6%), Malta (7.5%) and Slovenia (8.4%) were among the nine Member States where less than 1 in 10 young people were NEETs.
Proportion of the population aged 18-24 years neither in employment nor in education, 2018 (%)

Map 1: Proportion of the population aged 18-24 years neither in employment nor in education, 2018(%)Source: Eurostat (edat_lfse_18)

High shares of NEETs were also observed in the three candidate countries shown in Map 1, while in the three EFTA countries for which data are available the share of young people neither in employment nor in education
or training was consistently less than 8.0%, with the shares in Norway at 6.7% and those in Iceland even lower at 5.4%, which was similar to the rate of 5.4% in the Netherlands, the lowest among all of the EU Member States.

11% of those aged 25-64 attended training in last four weeks

For many people, education continues beyond the end of the time spent in initial formal education (at school or higher education). Employability largely depends on the skills that people acquire throughout their professional and private lives. In this sense, lifelong learning has become a necessity in a competitive job market, as the needs of enterprises continuously develop, together with the new technologies and techniques adopted by them.

The term lifelong learning encompasses all learning activities undertaken throughout life for personal or professional reasons, also after the end of the initial formal education. Through participation in learning activities people can improve their knowledge, skills and competences and so potentially enhance their careers as well as their quality of life. It is worth clarifying that lifelong learning statistics cover formal and non-formal guided education and training, but exclude self-learning activities. For example, evening courses are included as lifelong learning, whereas reading a history book, or visiting a science museum, although conceptually belonging to the concept of lifelong learning, are not included. The target population of Eurostat’s lifelong learning statistics is all members of private households aged between 25 and 64 years. These data are collected annually through the EU labour force survey (LFS). The indicator on participation shown in Figure 5 identifies the proportion of the target population reporting that they received education or training in the four weeks preceding the survey.

Figure 5: Proportion of the population aged 25-64 years having participated in lifelong learning, 2018(%)Source: Eurostat (trng_lfs_02)

In 2018, the participation in lifelong learning activities was 11.1% in the EU-28 among the population aged 25-64 years. Lifelong learning was considerably more common among people with a high level of educational attainment than it was among people with a low level of attainment. Data from 2018 show that Sweden, Finland and Denmark had notably higher rates of participation in lifelong learning programmes than other EU Member States. More than one in five people in these Member States participated in such learning activities whereas in all other Member States the share was below one fifth. Among the EFTA countries, Switzerland (31.6%) reported a share of its adult population participating in lifelong learning that was higher than in any of the EU Member States, while Iceland and Norway also reported relatively high rates. By contrast, participation in lifelong learning was below 5.0% in Greece and four eastern Member States — Slovakia, Croatia, Bulgaria and Romania — as well as in two of the three candidate countries for which data are available. The lowest
participation rate among the EU Member States was 0.9 % in Romania.

People who have attained a tertiary level of education are more likely to continue studying than those who have completed at most lower secondary education: this was the case in all EU Member States as well as all non-member countries shown in Figure 5. In the EU-28, in 2018, 19.0 % of the population aged 25 to 64 years having a high level of education participated in lifelong learning programmes, compared with 4.3 % of people having a low level of education, a difference of 14.7 percentage points. Particularly large differences were observed in France (22.2 percentage points), Estonia (21.4 percentage points) and Finland (22.8 percentage points), as well as in Austria, Luxembourg and Malta (both in the range of 18.5-20.0 percentage points). Unsurprisingly, much smaller gaps were observed in some of the Member States with the lowest overall levels of participation in lifelong learning, such as Bulgaria (3.6 percentage points). The enormously different participation rates for lifelong learning between the Member States can be illustrated by comparing the situation in Sweden with many other Member States. In 2018, 20.7 % of people with a low level of education in Sweden reported that they had recently participated in lifelong learning; it was higher than the participation rate for people with a high level of education in 18 of the other EU Member States.

Over 50 % of persons aged 16-74 had basic or above basic digital skills

The ability to use a computer and the command of a foreign language are among the most important competencies in modern economies, not only for the job market but also to take advantage of education, information and cultural opportunities in our increasingly digital and globalised societies.

Concerning digital skills, four skill levels are used for statistical indicators, ranging from 'no skills', through 'low' and 'basic' skills to 'above basic' skills. These levels are determined based on activities concerning four domains: information, communication, problem-solving and software skills. For each of these, several activities are identified and, depending on the number of these that a respondent declares having done (combined in some cases with their complexity) a respondent is assigned to one of the four skill levels; to be considered as having basic overall skills, respondents need to have at least basic skill levels in each of these four domains while to be considered as having above basic overall skills, respondents need to have above basic skill levels for all domains.
A majority of the EU-28 population aged 16-74 years (57 %) had at least a basic level of digital literacy in 2017 (see Map 2). There is however a digital divide, between northern and north-western EU Member States on one
hand and some other parts of the EU on the other. Two EU Member States, Bulgaria and Romania, reported that 29% of their populations had at least basic digital skills, considerably lower than in any other EU Member State and also lower than in the candidate countries shown in Map 2, where the share ranged from 32% to 39%, except in Montenegro where it reached 50%. The share of the population with at least basic digital skills ranged from 40% to less than 50% in Croatia, Italy, Poland, Greece, Latvia and Ireland. Elsewhere in the EU, a majority of the population aged 16-74 years had at least basic digital skills, with the highest shares, above 70% in the three Nordic Member States (Denmark, Finland and Sweden) as well as several western Member States, namely the United Kingdom, the Netherlands and Luxembourg which was the only Member State to report a share over four fifths (85%). Equally, the three EFTA countries for which data are available reported high overall levels of at least basic digital skills (all above 70%), most notably in Iceland where the same share (85%) was reached as in Luxembourg.

No foreign language known by one third of persons aged 25-64

Within the 28 EU Member States there are currently 24 official languages, while the EU is home to over 60 indigenous, regional or minority languages, for example Basque and Saami. In most EU Member States an ability to communicate in foreign languages has become increasingly important, not only as a means of communication, but also to facilitate mobility, whether for leisure, study, work or other reasons. One of the EU’s multilingualism goals is for all people to speak two languages in addition to their mother tongue.

The analysis presented in Figure 6 is based on the proportion of the population aged 25-64 years that did not know any foreign language. In 2016, this was the case for just over one third (35.3%) of the EU-28 population, with a relatively small gender gap as a slightly higher share of men (36.0%) than women (34.7%) did not know any foreign language. In four EU Member States — the United Kingdom, Romania, Hungary and Bulgaria — a majority of the population do not know a foreign language, while this was also the case for 45.8% of the population in Spain. Elsewhere in the EU, the share of the population not knowing any foreign language was under two fifths, and was below one tenth in Malta and Luxembourg as well as the Baltic and Nordic Member States.

In the two EFTA countries shown in Figure 6 less than one tenth did not know a foreign language, while among the candidate countries the shares ranged from one fifth in Malta and Luxembourg as well as the Baltic and Nordic Member States.

In most EU Member States, the gender gap concerning the proportion of the population that did not know any foreign language resulted from a higher proportion among men than among women. In Finland, the proportion of women not knowing a foreign language was 5.3 percentage points lower than that for men, while in Poland, Malta and Bulgaria this gap was between 4.0 and 5.0 percentage points. The reverse situation was observed in Slovenia, the Benelux countries, Portugal, Croatia, Hungary and France, as a higher proportion of women...
than men did not know a foreign language: this gap was largest in Slovenia (6.1 percentage points) and the Netherlands (4.1 percentage points).

In all three candidate countries for which data are available, the proportion of men not knowing a foreign language was lower than the proportion of women, with gender gaps exceeding 10.0 percentage points in Albania and North Macedonia.

Source data for graphs and maps

- Quality of life — education: figures and maps

Data sources

In the context of quality of life, education refers to: acquired competences and skills; the continued participation in lifelong learning activities; aspects related to access to education.

Data on educational attainment of the population, early school leavers and NEETs are provided by the EU-LFS. Data on self-reported foreign language skills are available from the Adult education survey (AES) and those on self-reported digital skills are coming from a survey on information and communication technology (ICT) usage in households.

Concerning the acquisition or not of new skills, the indicator on participation in early childhood education is available from education and training statistics (UOE data collection).

Context

Education affects the quality of life of individuals in many ways. People with limited skills and competencies tend to have worse job opportunities and worse economic prospects, while early school leavers face higher risks of social exclusion and are less likely to participate in civic life. But beyond pragmatic considerations, education is in itself of value to our societies, since it allows people to understand the world they live in better.

Education has an important place in EU policy as two headline targets of the overarching Europe 2020 strategy are related to education: at least 40% of 30-34 year-olds should have completed tertiary education, and drop-out rates from education and training should be less than 10% by 2020. Furthermore, the strategic framework for European cooperation in education and training (ET 2020) set objectives to make lifelong learning and mobility a reality, as well as improving the quality and efficiency of education and training. Another important European strategy promotes multilingualism with a view to strengthening social cohesion and intercultural dialogue within the EU.

Other articles

- Quality of life indicators (online publication)

Main tables

- Digital economy and society (t_isoc), see:
  - Digital skills (t_isoc_sk)
  - ICT users (t_isocSKU)
  - Individuals who have basic or above basic overall digital skills by sex (tepsr_sp410)
Database

- **Education and training (educ)**, see:

  Participation in education and training (educ_part)
  
  Pupils and students - enrolments (educ_oe_enr)
  
  Early childhood education and primary education (educ_oe_enrp)
  
  Adult learning (trng)
  
  Main indicators on adult participation in learning - LFS data from 1992 onwards (trng_lfs_4w0)
  
  Participation in education and training (last 4 weeks) - population aged 18+ (trng_lfs_4w1)

Education and training outcomes (educ_outc)

  Educational attainment level (edat)
  
  Population by educational attainment level (edat1)
  
  Transition from education to work (edatt)
  
  Young people by educational and labour status (incl. neither in employment nor in education and training - NEET) (edatt0)
  
  Early leavers from education and training (edatt1)

Languages (educ_lang)

  Self-reported language skills (educ_lang_00)
  
  Number of foreign languages known (edat_aes_l2)

Dedicated section

- **Quality of life**

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Notes