Employment rate of the age group 20 to 64, EU-28, 2002–2017 (%) Source: Eurostat online data code (t2020_10)

This article is part of a set of statistical articles on the Europe 2020 strategy. It provides recent statistics on employment and other labour market-related issues in the European Union (EU).

General overview

The Europe 2020 strategy is the EU’s agenda for growth and jobs for the current decade. It emphasises smart, sustainable and inclusive growth as a way of strengthening the EU economy and making it resilient towards forthcoming challenges.

Employment is a key policy component of the Europe 2020 strategy. Decent employment for all is crucial for ensuring adequate living standards. On top of contributing to quality of life and social inclusion of individuals, it also improves the well-being of the society as a whole, which makes it one of the cornerstones of socioeconomic development.

Overall, the EU labour market has consistently shown positive dynamics, with substantial progress towards the Europe 2020 strategy employment rate target. At the same time, long-term changes in the demographic structure of the EU population and rapid technological change add to the need to reform labour markets. Taking into account the decline in the working-age population (aged 20 to 64) accompanied by a rising old-age dependency ratio, higher employment rates, especially for women, older workers and young people remain among the priorities of the Europe 2020 strategy.
The Europe 2020 strategy sets out a target of ‘increasing the employment rate of the population aged 20 to 64 to at least 75 %’ by 2020.

Key messages

- In 2017 the overall employment rate in the EU reached 72.2%. As a result the distance to the Europe 2020 employment target of 75% narrowed to 2.8 percentage points. If the employment rate keeps increasing at the pace recorded since 2013, the Europe 2020 target would be within reach.

- In 2017, nine Member States — Ireland, the Czech Republic, Lithuania, Estonia, Germany, Sweden, Latvia, Malta and Croatia — had already met their respective national employment targets.

- Employment rates across the EU tend to show a north–south divide on a country level, with some of the best performing countries such as Germany, Sweden and the United Kingdom showing high variability in regional employment rates.

- In northern and western European countries employment rates tend to be higher in rural areas, whereas in most Baltic, central or eastern Member States cities exhibit higher employment rates.

- In 2017, employment rates of younger and older people continued to be lower than for the total employment rate in the EU.

- Considerably lower employment rates are observed for women than men. The gender employment gap is the widest for three age groups: 30 to 34, 35 to 39 and 60 to 64.

- People with low educational attainment form one of the most disadvantaged groups in the labour market, exhibiting low employment rates.

- Persons with non-EU citizenship show much lower employment rates compared to EU citizens.

- Younger people in the EU who are active in the labour market are at higher risk of being unemployed, with an unemployment rate twice as high as the total unemployment rate in 2017. However, in absolute numbers, this group is not necessarily large since many young people are still in education and not looking for a job.

- In 2017, 14.3% of 18 to 24 year olds were neither in education, nor in employment or training (NEET), exposing themselves to the risk of labour market exclusion and dependence on social security.

- Despite steady population growth in recent decades, the EU’s sub-replacement fertility rates and rising life expectancy are contributing to a shrinking working-age population and an increasing old-age dependency ratio. While in 2017 there were 305.3 million people of working age (20 to 64), the most recent population projections by Eurostat estimate it will decline in absolute terms by 1.1 million people by 2020.

- Following the recovery in GDP and employment growth, the share of newly employed people (those whose job started within the last 12 months) is at its highest level since 2009.

- Between 2008 and 2017, employment grew fastest in the professional, scientific and technical activities and the administrative sector, while it declined the most in the construction, agriculture and manufacturing sectors. Men were the most affected by this decline.

- In the EU, young people are at higher risk of being in involuntary part-time and fixed-term employment than other age groups, with 13.9% of 15 to 24 year olds involuntarily employed on time-limited contracts and 8.0% involuntarily in part-time work in 2017.

- Recent Cedefop projections show that in the EU the distribution of skills in the labour force largely matches the qualification requirements of the labour market. However, labour supply exceeds the demand for all qualifications types.
EU employment on the rise again – signs of gradual recovery

In 2017, the EU labour market continued to exhibit marked signs of improvement, spurred by the buoyancy of the economy, strong global outlook and accommodative macroeconomic policies. On the back of the strongest economic growth in a decade (2.5 %), employment expanded at a solid pace and in both 2016 and 2017 showed the highest growth rates since 2008 (1.4 %).

![Employment rate of the age group 20 to 64, EU-28, 2002–2017 (%)](image)

**Figure 1: Employment rate of the age group 20 to 64, EU-28, 2002–2017 (%)**

Source: Eurostat online data code (t2020_10)

The Europe 2020 strategy monitors its employment target through the headline indicator ‘Employment rate — age group 20 to 64’, which shows the share of employed 20 to 64 year olds in the total EU population.

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2 The age brackets for this headline indicator are narrower than for Eurostat descriptive statistics based on the Labour Force Survey, where employment covers people aged 15 years and older and unemployment includes people aged 15 to 74. In this report, people below the age of 20 are excluded because many of them are still in education or training and are not actively seeking employment (only 20.4 % of this age group were part of the labour force in 2017, Eurostat online data code (lfsa_pganws) ). The upper age limit is set to 64 years to take account of statutory retirement ages across Europe. You can see more information about the reason for choosing the age group 20–64 in the section Context.
In 2017, 217 million people (72.2 % of the EU population) were employed — almost three million (or 1.1 percentage points) more than in 2016. As shown in Figure 1, this is the highest share that has been observed since 2002. Nevertheless, there is still a 2.8 percentage points gap that needs to be closed to reach the Europe 2020 employment target of 75 % by 2020.

In 2017, 5.8 % of the population aged 20 to 64 were unemployed while the remaining 22.0 % were inactive.

North–south divide in employment rates across the EU

Between 2008 and 2017, the employment rate rose in most EU countries, with the strongest growth recorded in Malta (12.2 \[\text{percentage points}\]) and Hungary (11.8 percentage points). In 10 Member States (Greece, Cyprus, Spain, Denmark, Finland, Croatia, Netherlands, Latvia, Italy and Ireland) the employment rates were still below 2008 levels, however, all these countries\(^4\) were back on a ‘growth path’ by 2017.

To reflect different national circumstances, the general EU target has been translated into national targets. These range from 62.9 % for Croatia to 80.0 % for Denmark, the Netherlands and Sweden. In 2017, nine Member States had already met their national employment targets. Of the remaining Member States, nine were less than 2 percentage points below their national targets, led by Poland which was just 0.1 percentage points from its target. Greece and Spain were the most distant, at 12.2 and 8.5 percentage points below their national targets, respectively.

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\(^3\)Eurostat (online data code: (lfsa_pganws) ).

\(^4\)Except for Denmark, where a break in time series in 2016 could have influenced a lower employment rate in 2017 compared to 2016.
Figure 3: Employment rate, age group 15 to 64, 2008 and 2017 (%) Source: Eurostat online data code (lfsi_emp_a) and the International Labour Organisation (ILOSTAT)

Compared with non-EU G20 economies, the EU employment rate — here referring to the age group 15 to 64 — was higher than in most of these countries in 2017. Only Japan and Australia showed much higher rates of above 70%. In contrast, Saudi Arabia, India and South Africa reported particularly low employment rates of 52.5%, 52.0% and 40.4%, respectively.

Highest employment rates recorded in regions in north-western and central Europe
Map 1: Employment rate age group 20 to 64, by NUTS 2 regions, 2017 (% of population aged 20-64)

Map 1: Employment rate age group 20 to 64, by NUTS 2 regions, 2017 (% of population aged 20 to 64) Source: Eurostat online data code (lfst_r_lfe2emprt)
The differences in employment rates across Member States, shown in Figure 2, are also reflected in the crosscountry regional distribution of employment rates (at NUTS 2 level). Map 1 shows that the highest employment rates in Europe were mainly recorded in north-western and central regions, particularly in Germany, Sweden, the United Kingdom, the Netherlands, Austria and the Czech Republic. In 2017, the Finnish region 'Åland' had the highest employment rate in the EU, at 88.2 %, followed by 'Berkshire, Buckinghamshire and Oxfordshire' (United Kingdom), at 85.2 %, and 'Stockholm' (Sweden), at 84.2 %. At the other end of the scale, the lowest rates were observed around the Mediterranean, in particular in southern Italy, Spain and Greece, as well as in the French overseas regions and the outlying Spanish autonomous cities (Ceuta and Melilla). In 2017, the Italian regions Sicilia, Calabria, Campania and Puglia, and the French region Mayotte had the lowest employment rates in the EU, with less than 50 %.

Map 2 shows the change in regional employment rates since 2008. Among the 275 NUTS2 regions for which data are available, one-third (91 regions) experienced a fall in their employment rates over the observed period. Among the hardest hit were several regions in Greece, with reductions of 8 percentage points or more. In contrast, employment rates increased in 182 regions from 2008 to 2017. Growth rates of 5 percentage points or more were observed in 56 of these regions, 19 of which were in Germany, nine in Poland and the UK and seven in the Czech Republic and Hungary. Increases of more than 10 percentage points were recorded for regions in Hungary (Észak-Alföld, Észak-Magyarország, Dél-Alföld, Dél-Dunántúl, Központ-Dunántúl), Malta, France
Most western and northern Member States report highest employment rates in rural areas

Employment rates vary not only between regions, but also by degree of urbanisation. While the impact of population density was not obvious at the EU level in 2017, with cities, towns and suburbs recording an employment rate of 72.0 % and rural areas 72.6 %, patterns were discernable at the country level. In most western and northern European countries (such as Belgium, Austria and Germany), employment rates tended to be higher in rural areas. In contrast, most Baltic and central or eastern Member States (such as Bulgaria, Croatia and Slovakia) exhibit higher employment rates in cities. Southern European countries do not share a common pattern in terms of employment rates by degree of urbanisation.

Younger and older people tend to have lower employment rates

In 2017, the employment rate of people aged 30 to 54 was notably higher than for the overall working-age population aged 20 to 64 (see Figure 4). In contrast, considerably lower employment rates were observed for young people aged 20 to 29. This may not only reflect the overall lower activity rates of younger people but may also be due to the generally less secure position of young people in the labour market, which makes youth employment more sensitive to the macro-economic fluctuations than adult employment.

The lowest employment rate among the working-age population was reported for the group aged 55 to 64 years. However, the employment rate in this group has risen more or less continuously since 2002, reaching 57.1 % in 2017. Growth has been more pronounced for older women (22.0 [U+202F] percentage points) than for older men (15.6 percentage points) since 2002. Overall, the increase in the employment rate of older workers is one of the main drivers of the total rise in employment across the EU. These increases can be linked to structural factors such as cohorts with better educational attainment, especially women, moving up the age pyramid as well as recent pension reforms, such as increases in the pensionable age, the age for early retirement and the length of pension contribution. This has led to longer working lives for both women and men. The duration of working life is measured as the number of years a person aged 15 is expected to be active in the labour market. In recent years, this has risen in the EU by 2.7 years, from 32.9 years in 2002 to 35.6 years in 2016. The rise was higher for women (3.6 years) than for men (1.9 years). However, in 2016 men could still expect to stay in work much longer (38.1 years) than women (33.1 years).

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5Source: Eurostat (online data code: (lfst_r_ergau) )

6European Commission, Employment and Social Developments in Europe, Annual Review, 2017, p. 34 .

7Source: Eurostat (online data code: (lfsi_dwl_a) ).
Interestingly, for half of the Member States, and most notably for Spain, Italy, Belgium, Bulgaria, Netherlands and Portugal, the rise in the employment rate for older people (aged 55 to 64) between 2006 and 2017 was coincided with a fall in the employment rate for younger people (aged 20 to 24)\(^8\).

**Women still have lower employment rates but the gender employment gap is shrinking**

Despite women becoming increasingly well qualified and even out-performing men in terms of educational attainment (see also the article on ‘poverty and social exclusion’ article), the activity and employment rates of women remain lower than those for men. However, as shown in Figure 5, the **gender employment gap** — the difference in employment rates between men and women — has been decreasing for all age groups. Overall, for the age group 20 to 64, the gap fell from 17.3 percentage points in 2002 to 11.5 percentage points in 2017. A number of structural factors influencing the participation of women in the labour market may account for why they have been catching up with men. These include changes in social values and attitudes, policies enabling women to reconcile paid work with household responsibilities such as child care provision, flexible working hours, reduction in financial disincentives for women, improved mechanisms to encourage fathers’ parental engagement, and pension reforms\(^9\). European employment policies promoting new forms of flexibility and security are addressing the specific situation of women to help raise their employment rates in line with the headline target.

In 2017, the gender employment gap for 25 to 49 year olds was at 12.0 percentage points, which is 5.2 percentage points less than in 2002. The bigger gap for this age group in comparison to the age group 20 to 24 is not surprising, given this is the age when women are more likely than men to be economically inactive due to caring responsibilities for children. In 2017, family and caring responsibilities were the main reason for inactivity among 51.8 % of women in this age group, in comparison to 8.2 % of men\(^10\). In addition to caring responsibilities, women can face strong financial disincentives in tax-benefit systems when re-entering the labour market or wanting to work more\(^11\). Time out of the labour force for these reasons might also affect employment opportunities in later years because finding a job becomes more difficult the longer a person is not employed. This might partially explain why the gender employment gap is smaller for 20 to 24 years old, at 5.5 percentage points in 2017. Higher gender gaps in (short-term) employment rates in older age cohorts may be explained by

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\(^8\)Source: Eurostat (online data code: (lfsa_ergan) ).


\(^10\)Source: Eurostat (online data code: (lfsa_igar) )

a cohort effect (women who had not participated in the labour force when they were younger moving up the age pyramid) or reflect the lack of care facilities for grandchildren or dependent parents.

Higher education levels increase employability

Figure 6: Employment rate age group 20 to 64, by educational attainment level, 2005–2017(%)

Source: Eurostat online data code (tepsr_wc120)

Educational attainment levels are among the main factors that influence employment rates. Employment rates are higher for more well-educated people (see Figure 6). In 2017, the employment rate among tertiary education graduates (84.0 %) was much higher than the EU average total (72.2 %). In contrast, just slightly more than half of those with at most primary or lower secondary education were employed. The employment rate for people with upper secondary or post-secondary non-tertiary education was in between these levels and slightly above the overall EU average employment rate.

These findings underline the importance of education for employability. Increasing educational attainment and equipping people with skills for the knowledge society are, therefore, a major focus of European employment policies addressing Europe 2020 headline targets on employment and education (see ‘Education’ article).

Employment rates among non-EU migrants are considerably low

Figure 7: Employment rate age group 20 to 64, by citizenship, EU-28, 2006–2017 (%)

Source: Eurostat online data code (ifsa_ergan)
Economic migration is becoming increasingly important for the EU’s ability to deal with a shrinking labour force and expected skills shortages. According to current population projections, without net migration the working-age population aged 20 to 64 would shrink by 9% by 2030 and by 28% by 2060 compared with 2015 levels. As shown further below, the working-age population is expected to decline even with net migration into the EU, but at slower rates of – 4% by 2030 and – 13% by 206012.

Country of origin can impact the labour market performance of individuals. Migrant workers from countries outside the EU tend to occupy low-skilled and insecure jobs with temporary contracts and poorer working conditions13. Migrants are also among the first to lose their jobs during economic setbacks. Much lower employment rates are consequently reported for this group than for EU citizens (see Figure 7). In 2017, the employment rate of non-EU nationals aged 20 to 64 was 14.8 percentage points below the total employment rate. Additionally, their employment rate has so far not recovered from the setback caused by the economic crisis, with the 2017 rate being still considerably lower than the levels recorded in 2008.

**Labour market prospects of younger people are improving in the EU**

Youth unemployment is falling, although younger people are still at a higher risk of unemployment than people of other age groups

![Unemployment rate by age group, EU-28, 2002-2017](source: Eurostat online data code: lfsa_urgaed)

As Figure 8 shows, young people generally face a higher risk of being unemployed: in 2017, the unemployment rate of 15 to 24 year olds was more than double the rate for the entire population, at 16.8%, compared with 7.6% in total. However, because many young people at this age are full-time students and are not working or looking for a job, in absolute terms the number of unemployed people is small at just 3.8 million in 2017. Over the past few years, though, this age group has experienced a marked improvement in their labour market prospects. In 2017, the youth unemployment ratio was much lower (7.0%) than the youth unemployment rate (16.8%); it experienced a decline of 3.0 percentage points since 201314, while the youth unemployment rate declined by 6.9 percentage points over the same period15. In general, over the past 15 years, the youth

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12Source: Eurostat (online data code: (proj_15npms) ).


14Source: Eurostat (online data code: (tespm080) ).

15The youth unemployment rate may be high even if the number of unemployed persons is limited. This may be the case when
unemployment rate has followed a similar pattern to the total unemployment rate, although young people aged 15 to 24 were more strongly affected by the economic fluctuations, as Figure 8 shows.

It should be kept in mind that the unemployment rate does not include people who became discouraged and stopped looking for work. Nevertheless, this group still represents a potential additional pool of workers. In 2017, 8.1 million people or 2.1% of the total EU population were available and would have liked to work but were not seeking employment\(^\text{16}\). Moreover, underemployed part-time workers could also add to the labour force: in 2017, nine million people (or 2.4% of the total population) who were working part-time also wished to work additional hours and were available to do so\(^\text{17}\).

Similarly to employment, a clear link exists between unemployment and education, with more highly educated people experiencing lower unemployment rates. In 2017, only 4.5% of economically active people with tertiary education were unemployed compared to 14.8% of economically active people with at most lower secondary education\(^\text{18}\). This pattern was also visible among young people, with the risk of unemployment particularly high for those who had only completed lower secondary education (early leavers from education and training; see the ‘Education’ article).

The share of young people neither in employment nor in education and training has been decreasing since 2013

![Figure 9: Young people neither in employment nor in education and training, EU-28, 2002–2017 (% of population aged 18 to 24) Source: Eurostat online data code (edat_lfsi_20)](image)

The indicator monitoring young people neither in employment nor in education and training (NEET) covers people aged 18 to 24 years. Low educational attainment is one of the key determinants of young people entering the NEET category. Other important factors include having a disability or coming from a migrant background\(^\text{19}\).

Being in the NEET category for a considerable period of time may put young people in a very difficult situation in the labour market. Over the long term, they might fail to gain new skills and face erosion of their existing skills, which in turn might lead to a higher risk of labour market and social exclusion. Such challenges as labour market segmentation and variability in the performance of education and training systems, the available labour force (i.e. the rate’s denominator) is relatively small. For more information, consult youth unemployment.

\(^{16}\)Source: Eurostat (online data code: (lfsi_sup_a) ).

\(^{17}\)Source: Eurostat (online data code: (lfsi_sup_a) ).

\(^{18}\)Source: Eurostat (online data code: (lfsa_urgaed) ).

ability of quality work experience, and the effectiveness of tailored support provided to young people by public employment services, are among the main reasons why young people experience difficulties in the transition from education to work\textsuperscript{20}.

In 2017, 14.3 % of 18 to 24 year olds were neither in employment nor in education, exposing themselves to the risk of labour market exclusion and dependence on social security. This was an improvement since 2012 when the NEET rate for this age group peaked at 17.2 %, but was still slightly higher than the 2008 low of 14.0 %. In 2017, the NEET rate was higher for women (14.7 %) than for men (13.9 %). However, while women in the NEET category tended to be economically inactive, men were mostly unemployed.

The relative size of the EU’s working age population is shrinking due to ageing


Figure 10: Population age structure, by major age groups, EU-28, 2002, 2017, 2020, 2030, 2040(%) Source: Eurostat online data codes (demo_pjan and proj_15npms)

Employment rates are the result of the interplay between the supply of and demand for workers in the labour market. Labour supply is characterised by the number of working-age people available to the labour market (largely determined by demographic structure) and the skills they offer (approximated by their education and training attainment). Despite their importance to labour supply, the demographic structure of the economically active population and its skills composition are hard to influence in the short term. The EU is confronted with a growing but ageing population, driven by fertility rates and a continuous rise in life expectancy. This trend, which is already apparent in many Member States, will lead to a higher share of older people and a lower share of people aged 20 to 64 in the total population in the coming decades (see Figure 10). According to the European Commission Demography report 2015, these trends mean the EU labour force is shrinking in relative terms, which may lead to future labour shortages. This is a threat to the welfare of all generations unless the following conditions are met. First, the impact of a shrinking working-age population is cushioned by efforts to help a higher percentage of potential workers into employment and to extend the length of working lives. Second, population growth is sustained by increasing net immigration and fertility rates. Third, productivity is increased through sustained investment\textsuperscript{21}.

Between 2002 and 2017 the number of older people aged 65 and above increased by 26.9 %. The rise was particularly steep for the group aged 80 or over (by 58.1 %). At the same time, the working age population aged 20 to 64 grew only slightly, by 2.7 % over the same period. In contrast, the number of 0 to 19 year olds fell by 5.7 %.

The most recent population projections foresee a continuation of these trends, with further growth in the number of older people accompanied by a shrinkage of the share of the 20 to 64 age group: from 59.7 % in 2017

\textsuperscript{20}European Commission, Youth Employment, European thematic factsheet, 2017, p.7.

to 56.0 % in 2030 and 53.2 % in 2040 (see Figure 10). This amounts to a decrease of more than 12 million people by 2030 and more than 24 million by 2040 in this age group. At the same time, the number of older people aged 65 or over will grow by 25.8 million by 2030, meaning that in 2030 almost every fourth person in the EU will be 65 or above.

![Figure 11: Old-age dependency ratio, EU-28, 2002–2080(%) Source: Eurostat online data codes (demo_pjan) and (proj_15npms)](image)

One of the important factors contributing to the EU demographic structure is the ageing of the 'baby-boomers' who were born between 1946 and 1964 and are now entering their 60s. The baby-boom generation resulted from high fertility rates in several European countries over a 20- to 30-year period to the mid-1960s. They continue to comprise a significant part of the working population, but the first of this large group are now reaching retirement age.

Increasing life expectancy and shrinking annual net migration inflows are also likely to influence the EU’s demographic structure. Projections show that life expectancy of the EU population at birth is likely to increase by 7.8 years for males and 6.6 years for females by 2070 in comparison to 2016. Net migration flows are projected to halve by 2070 compared with 2016.

Recently, as a result of the demographic changes, the old-age dependency ratio increased from 26.4 % in 2002 to 32.6 % in 2017. This ratio shows the share of the population aged 65 and above compared with the population of 20 to 64 year olds. This means that while there were 3.8 people of working age for every dependent person over 65 in the EU in 2002, this number had fallen to 3.1 people by 2017. By 2030, the old-age dependency ratio is projected to reach 42.7 %, meaning there will be only 2.3 people of working age for every dependent person over 65. As shown in Figure 11, the EU’s old-age dependency ratio is projected to increase until 2060 and then to stabilise at slightly above 55 %, which corresponds to about 1.7 people of working age for every person over 65.

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Job creation and decent work

Figure 12: GDP growth, employment growth and newly employed persons, EU-28, 2003–2017 (%)
Source: Eurostat online data codes (lfsa_pganws), (nama_10_gdp) and (fsa_enewasn)

Employment (and unemployment) rates are closely linked to the business cycle. Usually this is expressed in terms of growth in gross domestic product (GDP), which can be seen as a measure of an economy’s dynamism and its capacity to create jobs. Figure 12 illustrates this relationship, showing similar patterns for GDP growth, employment growth and the share of newly employed people in total employment.  23

As Figure 12 shows, GDP growth has brought about a job-rich recovery over the past four years, with annual employment growth rates between 1.1% and 1.4% for 2014 to 2017. However, GDP growth is not necessarily associated with employment growth. In 2010 and 2011, GDP also grew, while employment stagnated. The pattern of ‘jobless growth’ stems from the fact that GDP grew mostly because of an increase in productivity and hours worked, leaving little room for employment growth. 24

The link between GDP growth and employment growth is also reflected in the share of newly employed people in total employment. This dropped considerably in 2009, following the contractions in GDP and employment in the same year. In 2017, following the recovery in GDP and employment growth, the share of newly employed people was at its highest level since 2009, at 14.2%.

Professional, administrative, scientific and technical sectors show the strongest signs of jobs recovery

23 People who started their job within the past 12 months.

Jobs growth is unevenly distributed across economic sectors and strongly dependent on general economic conditions as well as developments within these sectors. Overall, total employment across all EU economic sectors rose slightly between 2008 and 2017 (see Figure 13). Employment in the professional, scientific and technical activities sector grew the fastest over this period (by 21.5%, which equals to 2.2 million people), followed by traditional service sectors (by 18.3% or 1.4 million people in administrative and support service activities and by 17.4% or 1.5 million people in accommodation and food service activities).

However, the construction, agriculture and manufacturing sectors, which were also heavily affected by the economic crisis, showed the strongest declines between 2008 and 2017. These three sectors accounted for 96% of the jobs lost during the economic crisis and the subsequent recovery (from 2008 to 2016)\(^\text{25}\). Because these sectors are male-dominated, men have been affected more strongly by their decline than women. For instance, the number of women employed in construction fell by 10.1% (1.7 million people) between 2008 and 2017, while for men this decline was almost twice as strong, at 18.0% (2.9 million people).

**Involuntary non-standard work contracts most widespread among young people**

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In 2017, 13.4% of employees aged 20 to 64 in the EU were working on a fixed-term contract. Total temporary employment has been relatively stable around 13% over the past decade, with a slight upward tendency. It was most widespread among young people, with 44.0% of 15 to 24 year olds working on a time-limited contract. Temporary employment was much lower among 25 to 49 year olds (13.3%) and for older people aged 50 to 64 (7.0%).

The significant over-representation of young people in temporary work reflects not only changes in labour market demand, but also structural features of educational systems. In many Member States, for instance, temporary contracts for youth are associated with participation on education and training or a probationary period. In such cases, these contracts can potentially act as a stepping stone and support successful school-to-work transitions.

However, for many people having a fixed-term contract rather than a permanent one is not always a personal choice. In this respect, data on involuntary temporary employment provides a better insight into the excessive use of fixed-term contracts. In 2017, 7.7% of employees aged 20 to 64 year olds were involuntarily working on temporary contracts (see Figure 14). Again, the share was much higher for young people aged 15 to 24, at 13.9%. With some fluctuations, the overall trend since 2006 indicates growing use of involuntary fixed-term contracts. Although fixed-term contracts could create additional opportunities and reduce youth unemployment, there is also the risk that temporary work may represent ‘dead ends’ rather than ‘stepping stones’ for young people towards permanent jobs.

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26 Source: Eurostat (online data code: (lfsa_etgar) ).


The situation is quite similar when looking at part-time versus full-time contracts. In 2017, 18.7% of all employed people aged 20 to 64 in the EU worked on a part-time contract. More than a quarter (27.1%) were in involuntary part-time employment, meaning they were underemployed. The share of involuntary part-time employed in total employment rose from 4.4% in 2008 to 5.1% in 2017. As with involuntary temporary employment, young people are affected the most (see Figure 15). For all age groups the share of women in involuntary part-time employment exceeded that of men. The gender gap is widening with age, from 3.2 percentage points for 15 to 24 year olds to 4.9 percentage points for the 50 to 64 age group.

While part-time work can provide flexibility and better reconciliation between work and private life, and also be a valuable option for individuals who wish to be active in the labour market but cannot for health or disability reasons work full-time, it is also associated with low pay and might lead to poverty and social exclusion. In 2017, more than one in three younger workers and one in four prime-age and older workers work part time not by choice but because they could not find full-time employment, and the share of involuntary part-time work has increased over the past decade. The economic crisis was partly responsible for this underemployment but it also continues a trend that preceded the crisis, which suggests that it is likely to be a structural feature of the labour market.

In recent decades, there has been an increase in non-standard labour relationships in the EU, indicating a growing distance of firms from long-term commitments to workers, caused by socio-economic transformations, such as the transition towards a service economy, technological developments and pressures from cost-saving strategies spurred by firms’ internationalisation.

Skills mismatches in the labour market

A well-functioning labour market depends largely on matching the labour force’s skills and qualifications to those demanded by employers. Although some skills mismatch is inevitable, high and persistent mismatches can be costly for employers, workers and society at large. Technological and demographic changes remain a challenge in the EU and might contribute to skills mismatches in the future. Matching educational outcomes and labour market needs is a key component of the Europe 2020 strategy. In particular, the impact of the economic crisis has increased the need to better understand where future skills shortages are likely to lie in the EU.
Changes in labour force skills outpacing changes in employment trends

Figure 16: Labour force and employment trends by qualification, EU-28, 2008, 2017, 2020 and 2025 (million persons) Source: Cedefop 2016 skills forecast

According to estimates from the European Centre for the Development of Vocational Training Cedefop, the distribution of skills in the labour force largely matched the qualification requirements of the labour market in 2017. However, labour supply exceeded demand for all qualification types, with the difference being particularly high for the low- and medium-level qualifications. The demand for a skilled labour force is likely to continue to grow; the most recent forecasts from Cedefop indicate that between 2017 and 2025 more than 13 million jobs requiring high educational attainment will be created, while low-qualified jobs will decline by almost 6 million (see Figure 16).

Overall, the Cedefop forecasts show a parallel rise in skills from both the demand and the supply side until 2025, however, skills supply is expected to grow slightly faster than skills demand. For instance, the share of the labour force holding only primary or lower secondary education is expected to decrease from 20.2% in 2017 to 16.8% in 2025, whereas the share of positions for people with low-level qualifications are projected to fall from 18.4% to 15.4%. However, this parallel development does not prevent potential skills mismatches, such as over-qualification (see section below).

Over-qualification rates increased in the EU between 2002 and 2017, and the gender gap widened.
Skills mismatch is most commonly seen as the inability of employers to fill vacancies despite high unemployment. This can hamper economic productivity and individual potential, especially when more highly educated people are trapped in jobs without opportunities to continually develop and use their skills. According to the Cedefop survey results, in 2014 about 25% of highly qualified first job entrants were overqualified for their position.

As no commonly agreed indicators to measure skills mismatch within the European Statistical System (ESS) exist, Eurostat has developed some experimental statistics to foster the policy debate on this issue. The overqualification rate refers to ‘vertical’ skills mismatches, looking into discrepancies between educational attainment levels and occupations. Figure 17 shows the trends in the over-qualification rate in the EU from 2002 to 2017. Over-qualification refers to the situation where a person has a level of skill or education higher than is required for his or her job. Here, this is measured as the share of graduates in tertiary education in employment whose occupations do not require this level of education, over the total employment of tertiary graduates.

The share of people with tertiary education working in such occupations has increased almost steadily in the EU since 2002, reaching a share of 22.7% of the total employment of tertiary graduates in 2017. This equals to 17.8 million people in the EU. In 2017, women with tertiary education were more likely to be overqualified than men, with 24.0% and 21.3% respectively.

There are many reasons why people may have to take on a job below their qualification level. Young workers are at higher risk of being overqualified for their jobs because they are more likely to have had a higher education than prime-age and older workers. Women also tend to be more overqualified than men. This might be because women in general have higher qualification levels (see the article on ‘Education’). Another reason may be that they are more likely to take over childcare responsibilities and so are more willing to accept jobs that do not match their education but allowing for a more flexible work-care balance. Women also face ‘glass ceiling’ effects, as they continue to be less likely to be promoted even though they are more likely to be highly educated.

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36 Eurostat, *Skills mismatch experimental indicators*.

37 According to the ILO’s International Standard Classification of Occupations (ISCO), the following occupations do not require tertiary education: clerical support workers, service and sales workers, skilled agricultural, forestry and fishery workers, craft and related trades workers, plant and machine operators, assemblers and elementary occupations. See International Labour Organisation, *International Standard Classification of Occupations*.


Signs of economic expansion with increasing job vacancies and decreasing unemployment

Figure 18: Beveridge curve, EU-28, 2006–2017(%) Source: Eurostat online data codes (jvs_q_nace2), and (une_rt_q)

Job vacancy statistics provide an insight into the demand side of the labour market, in particular the unmet labour demand. A job vacancy is defined as a paid post that is newly created, unoccupied or about to become vacant. The employer must be taking active steps and be prepared to take further steps to find a suitable candidate from outside the enterprise. The employer must also intend to fill the position either immediately or within a specific time period. A vacant post that is only open to internal candidates is not treated as a ‘job vacancy’.

Quarterly job vacancy statistics are used for business cycle analysis and for assessing mismatches in labour markets. Of particular interest is the relationship between vacancies and unemployment. The so-called Beveridge curve reflects their negative correlation (see Figure 18). During economic contractions there are few vacancies and high unemployment, while during expansions there are more vacancies and the unemployment rate is low.

Structural changes in the economy can cause the Beveridge curve to shift. During times of uneven growth across regions or industries — when labour supply and demand are not matched efficiently — vacancy and unemployment rates can rise at the same time. Conversely, they can both decrease when the matching efficiency of the labour market improves. This could be, for example, due to a better flow of job vacancy information thanks to the internet. Empirical analysis of the curve can be challenging because both movements along the curve and shifts can take place at the same time with different intensities.

Figure 18 shows three phases in the development of job vacancies and unemployment in the EU since 2008. From 2008 to 2010 a movement along the Beveridge curve confirmed the contraction of the EU economy, with falling vacancies and rising unemployment levels. In the following years, the movements of the Beveridge curve itself pointed to a deterioration in the matching process of labour demand and supply. Since the end of 2013, a movement along the curve has been visible again, mirroring the economic expansion with growing job vacancies and falling unemployment levels. In 2017, especially in the second semester, vacancies jumped abruptly and by more than the decline in unemployment, hinting at the possibility that skill mismatches are further constraining an improvement the unemployment rate. This would imply that the jobless rate is approaching its structural rate, which is the rate that could not be further reduced by economic growth alone.

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40 Post-crisis movements in the euro-area Beveridge curve were the result of a mix of temporary, demand-related and structural factors. The outward shift of the Beveridge curve since 2008 observed at the aggregate level was to some extent linked to worsened labour market matching, with however major differences across countries (Labour market and wage development 2014).

Data sources

Indicators presented in the article:

- Employment rate age group 20-64 (t2020_10)
- Breakdown by country (t2020_10)
- Breakdown by NUTS 2 regions (lfsr_lfe2emprt)
- Breakdown by degree of urbanisation (lfsr_ergau)
- Breakdown by age groups (lfsa_pganws, t2020_10)
- Gender employment gap (lfsa_ergan)
- Breakdown by level of education (tepsr_wc120)
- Breakdown by citizenship (lfsa_ergan)
- Unemployment rate by age group (lfsa_urgaed)
- Young people neither in employment nor in education and training by sex (sdg_08_20)
- Population age structure by major age groups (demo_pjan, proj_15npms)
- Old-age dependency ratio and projections (demo_pjan, proj_15npms)
- GDP growth, employment growth and newly employed persons (nama_10_gdp, lfsa_pganws, lfsa_enewasn)
- Employment growth by economic sector (lfsa_egan2)
- Involuntary temporary employees (lfsa_etgar, lfsa_etpgan)
- Involuntary part-time employment (lfsa_epgar, lfsa_epgaed)
- Labour force and employment by educational attainment (Cedefop 2015 skills forecasts)
- Share of people with at least upper secondary education working in elementary occupations (lfsq_egised)
- Job vacancy rate (jvs_q_nace2)

Context

Employment and other labour market-related issues are at the heart of the social and political debate in the EU. Paid employment is crucial for ensuring sufficient living standards and it provides the necessary base for people to achieve their personal goals and aspirations. Moreover, employment contributes to economic performance, quality of life and social inclusion, making it one of the cornerstones of socioeconomic development and well-being.

The EU’s labour force is shrinking as a result of demographic changes that have led to a greater share of older people than younger people in the population. Because of these changes, a smaller number of workers are now supporting a growing number of dependent people, putting the sustainability of Europe’s social model, welfare systems, economic growth and public finances at risk. At the same time, global challenges are intensifying and competition from developed and emerging economies such as China and India is increasing.

To face the challenges of an ageing population and rising global competition, the EU needs to make full use of its labour potential. The Europe 2020 strategy, through its ‘inclusive growth’ priority, places a strong emphasis...
on job creation. One of its five headline targets addresses employment, with the aim of raising the employment rate of 20 to 64 year olds to 75 % by 2020.

The EU’s employment target is closely interlinked with the other strategy goals on research and development (R&D) (see the article on ‘ R&D and innovation ’), education (see the article on ‘ Education ’) and poverty and social exclusion (see the article on ‘ Poverty and social exclusion ’). Higher educational levels increase employability and higher employment rates can in turn contribute to economic performance and poverty alleviation, thus addressing the strategy’s inclusive growth objective. Moreover, boosting R&D capacity and innovation could improve competitiveness and thus contribute to job creation.

What is meant by ’activity‘, ’employment‘, ’unemployment‘ and ’labour force‘?

People are classified as employed, unemployed and economically inactive according to the definitions of the International Labour Organisation (ILO). At the EU level, the two main sources for this data are the EU Labour Force Survey (EU LFS) and National Accounts (including GDP).

The EU LFS is a large sample survey of private households, excluding the population living in institutional households (such as workers’ homes or prisons). The survey classifies respondents as employed, unemployed or economically inactive based on information collected through the survey questionnaire, relating mainly to their activity during a reference week. The EU LFS data refer to the resident population, meaning the results relate to the country of residence of people in employment, rather than to their country of work.

Labour force refers to the economically active population. This is the total number of employed and unemployed people. Persons in employment are those who, during the reference week, did any work for pay or profit, or were not working but had a job from which they were temporarily absent. The term ’work‘ is defined as any work for pay or profit during the reference week, even for as little as one hour. Pay includes cash payments or payment in kind (payment in goods or services rather than money), regardless of whether or not payment was received in the week the work was done. Anyone who receives a wage for on-the-job training that involves the production of goods or services is counted as being in employment. Self-employed and family workers are also included.

Employment rates represent the share of employed persons in the total population in the same age group; they are typically published for the age group 15 to 64 years. The earliest age that a person can leave full-time compulsory education in the EU is 15 and in many Member States this is also the minimum employment age. However, in a majority of Member States it is rare to attain secondary education while working (even part-time). Therefore, most 15 to 19 year olds who are still in education or training are not seeking employment. Students that attain higher levels of education tend to enter the labour market later. This is in line with the strategy’s headline targets on education that promote further education (see the article on ‘ Education ’). As a result, the lower age limit of the Europe 2020 strategy’s employment target has been raised to 20 years. The upper age limit for the employment rate is usually set to 64 years, taking into account statutory retirement ages across Europe.

People are considered to be unemployed if they were:

1. Without work during the reference week, meaning they neither had a job nor were at work (for one hour

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43This difference may be significant in countries with large cross-border flows.


or more) in paid employment or self-employment.

2. Available to start work, meaning they were available for paid employment or self-employment before the end of the two weeks following the reference week.

3. Actively seeking work, meaning they had taken concrete steps in the four-week period ending with the reference week to seek paid employment or self-employment or who found a job starting within three months.

The unemployment rate is the number of unemployed persons as a percentage of the labour force. To take into account people who would like to (or have to) work after the age of 64 but are unable to find a job, the upper age limit for the unemployment rate is usually set to 74. As a result, the observed age group for unemployed persons usually is 15 to 74 years.

The youth unemployment rate is the unemployment rate of people aged 15 to 24. In contrast, the youth unemployment ratio is the percentage of unemployed young people compared to the total population of that age group (not only the active, but also the inactive such as students).

The economically active population is the sum of employed and unemployed persons. In contrast, inactive persons are those who, during the reference week, were neither employed nor unemployed. The activity rate is the share of the population that is economically active.