Employment rates of recent graduates

This article presents an overview of European Union (EU) statistics related to the employment rates of young people (those aged 20–34 years) who have recently graduated from either upper secondary or tertiary levels of education (as defined by the international standard classification of education (ISCED)). It provides information on the transition from education to work and analyses the access to the labour market among recent graduates (those who have graduated within the last one to three years).

As one of a set of statistical articles forming part of an online publication on education and training, this article provides a complement to information on early leavers from education and training and young people neither in employment nor in education or training.

**Employment rates of recent graduates**

The data presented in this article refer to ‘graduates’ in a broad sense of the term, namely people having left education and training with at least an upper secondary level of educational attainment (ISCED 2011 levels 3 to 8).

**A tertiary education or a vocational education increases employment opportunities**

Figure 1 presents EU employment rates for recent graduates (aged 20–34) by level of educational attainment. It reveals that the highest employment rates (for people not in education or training alongside their employment) in 2018 were recorded for those who had graduated with a tertiary education (ISCED levels 5–8), while lower employment rates were recorded for those with an upper secondary or post-secondary non-tertiary education (ISCED levels 3 or 4). Note that recent graduates with a vocational upper secondary or post-secondary non-tertiary education (hereafter referred to as ‘vocational graduates’) systematically recorded higher employment rates than those with a general upper secondary or post-secondary non-tertiary education (hereafter referred to as ‘generalist graduates’). As such, it would appear that apprenticeships and other kinds of education programmes that equip students with the knowledge, know-how, skills and/or competences required for a particular occupation increase the likelihood of recent graduates being able to find a job.

It should be noted that the indicator ‘employment rate of recent graduates’ presented in this article concerns recent graduates (in other words, those who have graduated within the last one to three years) meeting two criteria, namely:

- being in employment, and;
- not in any further (formal or non-formal) education or training (during the four weeks preceding the survey).

The proportion of recent graduates who are undertaking education or training alongside their employment – not covered by the above-mentioned indicator – varies depending on their level of educational attainment and this may influence the employment level of recent graduates.

The other aspect clearly apparent from Figure 1 is the increase in recent graduate employment rates as a function of the time spent since the completion of education. Again it should be noted that this may reflect falling participation in education and training alongside employment as the time since graduation increases,
and not just increases in the chances of employment.

For all three groups of educational attainment, the lowest employment rates for graduates aged 20–34 were recorded for those who had left education or training during the three previous years, which reflects, to some extent, the initial difficulties that recent graduates have in finding their first job.

The employment rates at EU-level for graduates having left education or training during the last three years shows that for those with a tertiary education it was 83.4 % in 2018, while the corresponding rate for vocational graduates was 4.3 percentage points lower. By contrast, the employment rate for generalist graduates was considerably lower, at 65.8 %, or some 17.6 percentage points below the corresponding figure for tertiary graduates.

Skills mismatch: tertiary graduates may take jobs for which they are over-qualified

Some of the differences between generalist and tertiary graduates may be linked to tertiary graduates deciding to take jobs for which they were over-qualified in order to get into the labour market, thereby boosting the employment rate for tertiary graduates while at the same time lowering employment rates for other graduates. This may be particularly important in those cases where labour market demand is subdued, for example, following the onset of the global financial and economic crisis.

Figure 1: Employment rates of recent graduates (aged 20–34) not in education and training, by educational attainment level and years since completion of education, EU, 2018(%)Source: Eurostat (edat_lfse_24)
Benchmark target for ET 2020

While each EU Member State remains responsible for its own education and training system, the strategic framework for education and training 2020 (ET 2020) is designed to address common challenges, while providing a forum for the exchange of best practices and sharing evidence of policy initiatives within this domain that have been a success.

ET 2020 sets eight education and training benchmarks to be achieved in the EU by 2020. Among these, one target is specifically related to the employment rate of recent graduates. It was introduced in May 2012 and aims to see the share of employed graduates (aged 20-34 with at least upper secondary education attainment and having left education one to three years previously) reaching 82.0 %.

It is important to note that the target employment rate for recent graduates encompasses both those leaving education and training with at least an upper secondary or post-secondary, non-tertiary qualification (ISCED 2011 levels 3 and 4) with either general or vocational orientations, and those leaving with a tertiary education qualification (ISCED 2011 levels 5-8).

Employment rates for recent graduates in Malta were almost twice as high as those recorded in Greece or Italy

Table 1 provides a detailed picture of the latest information available for employment rates of recent graduates. It is based on graduates (aged 20-34) who had completed their education or training between one and three years prior to the survey being conducted. In 2018, the EU employment rate for this subpopulation was 81.6 %, ranging from highs of 92.0 % in the Netherlands, 92.1 % in Germany and 94.8 % in Malta to lows of 55.3 % in Greece and 56.5 % in Italy; a low rate was also recorded in North Macedonia (49.2 %). Aside from the Netherlands, Germany and Malta, there were 14 additional EU Member States where the employment rate of recent graduates was above the 82.0 % benchmark target set by the ET 2020: Czechia, Austria, Sweden, Luxembourg, Hungary, the United Kingdom, Denmark, Lithuania, Ireland, Slovenia, Latvia, Slovakia, Belgium and Poland.
Development over time

Employment rates of recent graduates almost back to their 2008 level

In keeping with the remainder of the population, recent graduates have been affected by the global financial and economic crisis. Before the crisis, employment rates of recent graduates in the EU climbed constantly, reaching a peak of 82.0 % in 2008. Rates increased for both those graduating with an upper secondary or post-secondary non-tertiary education, as well as those graduating with a tertiary level of educational attainment. Employment rates peaked at 77.0 % for the former and 86.9 % for the latter. Figure 2 shows that from 2008 EU employment rates of recent graduates decreased during a period of five consecutive annual reductions, but in 2014 this rate showed signs of recovery (up by 0.6 percentage points compared to 2013). By 2018, the EU employment rate for recent graduates stood at 81.6 %, and is 0.4 percentage points below its relative peak in 2008.

Employment rates of recent tertiary graduates were lowest at 80.5 % in 2014 (which was 6.4 points lower than in 2008) but were up to 85.5 % in 2018, still 1.4 percentage points below their relative peak in 2008 (at 86.9 %). Turning to recent graduates from upper secondary or post-secondary non-tertiary education, the EU employment rate was lowest at 69.4 % in 2013 (which was 7.6 points lower than in 2008). By contrast, data for 2014 saw an upturn for this subpopulation, as their rate rose by 1.3 points to 70.7 % and increased in 2018 to 76.8 % and thus 0.2 percentage points away from the 2008 peak.
In 2018, the gap in employment rates between recent tertiary graduates and recent upper secondary or post-secondary non-tertiary education graduates was 8.7 percentage points, which was slightly smaller compared to the situation in 2008 (9.9 points).

**Employment rates of recent graduates (aged 20–34) not in education and training, by educational attainment level, EU, 2008–2018 (%)**

The increase in the employment rate of recent graduates through to 2008 was cancelled out by the economic and financial crisis . . .

A comparison between 2008 and 2018 for employment rates of recent graduates is shown in Figure 3. There was almost no change in the EU employment rate over this period (82.0 % in 2008 compared with 81.6 % in 2018). This reflects the sluggish economic recovery post-2008 which cancelled out any gains made before the period under consideration.
In almost all EU countries, employment rates of recent graduates peaked around 2007/2008, followed by often severe declines in the subsequent years. For the period 2008-2018, lowest employment rates reported by Member States fell between 2009 and 2015, with 16 countries reporting their lowest rate between 2012 and 2014, i.e. the start of recovery varies across countries. Compared to 2008, access to the labour market for graduates is still particularly low in Greece and Italy, where the employment rate of recent graduates in 2018 was 13.0 and 8.7 percentage points respectively below their 2008 levels. Comparatively low rates are also reported by Romania, Cyprus, Croatia and Spain where employment rates of recent graduates were around 7.0 points below their 2008 levels. It is interesting to note that back in 2008, Spain, Romania and Cyprus each recorded employment rates for recent graduates that were above the 82.0 % ET 2020 benchmark target.

Of the 17 EU Member States that recorded employment rates for recent graduates in 2018 that were above the 82.0 % benchmark target, Lithuania, Germany and Hungary registered the most sizeable increases between 2008 and 2018, with gains of 5.4 percentage points, 5.6 and 7.3 points respectively. By contrast, although the latest employment rates for recent graduates in Belgium, the Netherlands, Malta, Austria, Ireland and Denmark remained above the 82.0 % target, each of these recorded lower rates in 2018 than in 2008.

**Disparities by educational attainment level**

Tertiary recent graduates recorded the highest employment rates

The level of educational attainment plays a key role when recent graduates seek employment. Those with a tertiary level of educational attainment recorded the highest employment rates and were generally better
shielded from the risks of unemployment than their peers who entered the labour market with lower levels of educational attainment. In 2018, the employment rate of recent tertiary graduates was over 90.0 % in Austria, Belgium, Lithuania, Latvia, Hungary, Czechia, Sweden, Luxembourg, Germany, the Netherlands and Malta. There were four EU Member States where this indicator was less than 80.0 %, although only two of these recorded rates that were lower than 70.0 %, the exceptions being two of the EU Member States most affected by the financial and economic crisis: Greece and Italy.

A comparison between employment rates for the whole population (those aged 20–64) irrespective of their level of educational attainment and employment rates of recent graduates shows that graduates generally benefit from the completion of their education. In 2018, Greece and Italy were the only EU Member States where the employment rate of recent graduates was lower than the overall employment rate, suggesting that new graduates faced particular challenges to enter the labour market in both of these countries.

While young people have in recent years faced increasing challenges in their transition from education into the workforce, Figure 4 shows that employment rates of recent tertiary graduates in 2018 were higher than employment rates for those graduating with a generalist or vocational qualification in all but two of the 27 Member States for which data are available (incomplete information for Croatia). The exceptions were Luxembourg and Slovakia which recorded a higher employment rate among recent vocational graduates (95.4 % and 84.7 % respectively) than for either general (71.9 % and 84.3 %) or tertiary (94.0 % and 82.4 %).

![Figure 4: Employment rates of recent graduates (aged 20–34) not in education and training, by educational attainment level, 2018(%)](image)

Note: graduates having graduated within one to three previous years; ranked on the overall rate for recent graduates with an upper secondary & post-secondary non-tertiary education or a tertiary education (ISCED 2011 levels 3–8).

(*) Upper secondary & post-secondary non-tertiary education — general, low reliability.


Source: Eurostat (online data code: edat_lfse_24)

In 2018, the biggest differences in employment rates between recent tertiary graduates and recent generalist graduates (among those aged 20–34) were recorded in Belgium and France, where the former had an employment rate that was 46.4 percentage points higher, while differences of 26-27 points were recorded between these two subpopulations in Italy, Romania and Germany.
Employment rates of recent vocational graduates were generally higher than those of generalist graduates. However, among the 27 EU Member States for which data are available, there were four where this pattern did not hold: the Netherlands, Cyprus, Bulgaria and Malta. As a result, the gap between employment rates for recent tertiary graduates and recent vocational graduates was usually narrower and this was particularly true in Austria, Denmark, Germany and Slovenia where the differences were no more than 3.0 percentage points (in favour of recent tertiary graduates). In contrast, in Latvia, Bulgaria and Romania there was a considerably wider gap between the employment rates of recent tertiary graduates and recent vocational graduates, with differences of 15 percentage points or over.

**Gender differences**

Recent male graduates in the EU were more likely to find work than their female counterparts.

In 2018, the EU employment rate of recent male graduates stood at 83.3 %, reaching the EU2020 benchmark already in 2017. The rate for recent male graduates was higher than the rate recorded among recent female graduates (80.0 %); this continued a pattern that was apparent over the latest 10-year period for which data are available, as shown in Figure 5. Some of these gender differences may be explained by the nature of studies (fields) that are typically followed by the two sexes (for example, a higher proportion of science and technology students tend to be male) and by differences in labour market demand for graduates with different skills.

![Figure 5: Employment rates of recent graduates (aged 20–34) not in education and training, by sex, EU, 2008–2018(%)](image-url)
The largest gender gap for EU employment rates of recent graduates was recorded in 2008. However, with the onset of the financial and economic crisis, there was a rapid reduction in the gap between male and female rates. In 2009, the employment rate of recent male graduates fell by 4.9 percentage points, compared with a reduction of 2.6 percentage points among recent female graduates. This was short-lived as the gender gap widened again in 2010 and remained within the range of 3.3–4.7 percentage points (in favour of young male graduates) during the period 2010 to 2018.

The gender gap in employment rates of recent graduates was present in 21 of the EU Member States and was most pronounced in Slovakia, Czechia and Romania where the employment rates of recent male graduates were respectively 15.8, 12.6 and 10.5 percentage points higher than those for women; an even larger gender gap was recorded in Turkey (18.3 points).

By contrast, employment rates for recent female graduates were slightly higher than those for their male counterparts in Malta, the United Kingdom and Belgium, with a difference between the sexes of no more than 2.0 percentage points, a gap that rose to 2.9, 3.3 and 8.7 points respectively in Luxembourg, France and Cyprus; there was also a gap in favour of women in Switzerland, Norway and Montenegro (respectively 0.5, 1.2 and 6.1 points difference between the sexes).

Employment rates of recent graduates (aged 20–34) not in education and training, by sex, 2018 (%)

Source: Eurostat (edat_lfse_24)

Key concepts

The employment rate is obtained by dividing the number of persons in employment of a particular age group by the total population of the same age group. The indicator for recent graduates is calculated for the
age group 20–34 and concerns those who had successfully completed their highest level of education one to three years beforehand. The term ‘graduate’ refers to any person who has left education and training with at least an upper-secondary or post-secondary, non-tertiary qualification or with a tertiary qualification (ISCED 2011 levels 3–8). The denominator for the ratio is based solely on those persons who were no longer in (formal or non-formal) education or training and hence excludes both:

- those who continue to follow their studies while working (for example, part-time jobs, seasonal work, holiday jobs);
- those who are primarily working but at the same time engaged in some form of education or training, for example, apprentices.

For the purpose of this article, graduates are defined as those who entered and successfully completed an education programme. The information presented refers to those students who graduated from ISCED 2011 levels 3–8. Graduates are only counted once, at the level of the highest programme successfully completed.

**Data source**

The EU labour force survey (LFS) provides statistics on employment rates of recent graduates. The LFS is documented in this background article which provides information on the scope of the data, its legal basis, the methodology employed, as well as related concepts and definitions.

**Levels of educational attainment**

Common definitions for education systems have been agreed between the UNESCO Institute for Statistics (UIS), the OECD and Eurostat. UNESCO developed the International standard classification of education (ISCED) to facilitate comparisons across countries on the basis of uniform and internationally agreed definitions. In 2011, a revision to the ISCED was formally adopted, referred to as ISCED 2011. Prior to this, ISCED 1997 was used as the common standard for classifying education systems. Note that Eurostat statistics on employment rates of recent graduates have a break in series in 2014 when the first information collected under the ISCED 2011 classification became available; prior to this date these statistics were collected using ISCED 1997. For more information, see the article on the ISCED classification.

**Note on symbols used in tables**

The colon (‘:’) is used to show where data are not available.

**Context**

Education and training 2020 (ET 2020) is the EU’s strategic framework for cooperation in education and training. It provides a forum for exchanges of best practices, mutual learning, as well as advice and support for policy reforms. ET 2020 has set eight EU benchmarks for 2020, one of which is specifically in relation to employment rates for recent graduates, namely, that: ‘the share of employed graduates (aged 20–34 with at least upper secondary education attainment and having left education 1–3 years ago) should be at least 82 %.’

The Europe 2020 strategy sets ambitious objectives for smart, inclusive and sustainable growth. Quality education and training, successful labour market integration and a higher degree of mobility of young people are all considered key factors for unleashing the potential of the EU’s young graduates in order to help achieve the Europe 2020 objectives. To achieve a successful and efficient transition from education and training to employment, recent graduates should be able to find well-paid jobs that use their knowledge/skills acquired in education and training. Obtaining a tertiary level of educational attainment or a vocational qualification improves the employment prospects of young people. Similarly, persons with qualifications such as these tend to find their first job faster than those with lower levels of educational attainment. Indeed, there has been an increase in the number of tertiary graduates within the EU in recent years, reflecting a view that as economies become more highly-skilled and reliant on innovation and technology, they will require an increasingly well-educated workforce. The percentage of the EU population (aged 25–64) who had successfully completed tertiary studies rose from 20.0 % in 2002 to 32.3 % in 2018.

The overall state of an economy is also an important determinant for both the availability and the quality of job opportunities. With a downturn in economic fortunes resulting from the global financial and economic
crisis, graduates in the EU faced a range of difficulties when trying to enter labour markets, with persistently high unemployment rates and many graduates accepting work for which they were over-qualified or unqualified. Such a mismatch may result from differences between occupations and qualifications (a vertical mismatch), or from differences between occupations and fields of study (a horizontal mismatch); the former is generally more common within the EU (see also Skills mismatch experimental indicators).

Matching educational outcomes and labour market needs is a key component of the Europe 2020 strategy. Indeed, equipping people with the right skills for employment has been identified as one of four priorities of the flagship initiative ‘An agenda for new skills and jobs’, which seeks, among others, to better understand where future skills shortages are likely to lie in the EU. The ‘Youth guarantee’ calls on EU Member States to ensure that all young people under the age of 25 receive a good quality offer of employment, continued education, an apprenticeship, or a traineeship within four months of leaving formal education or becoming unemployed. Its main aim is to help tackle youth unemployment and to smooth the transition from education to work.

To match the supply and demand of skills better, the European Commission launched an EU skills panorama in December 2012. This portal aims to help anticipate skills needs and improve the responsiveness of education and training systems. Furthermore, the European Commission monitors the jobs market, through the regular publication of a vacancy and recruitment report, a vacancy monitor, and a job mobility bulletin, which together provide a comprehensive overview of European labour markets.

The education, youth, culture and sport Council meeting of 10 and 11 May 2012 adopted the following benchmark on the share of employed graduates from education and training: by 2020, the share of employed (20–34 year-olds) having left education and training no more than three years before the reference year should be at least 82%.

For more details: refer to the conclusions of the May 2012 meeting, available on the Council’s website.

Other articles
- Education and training in the EU — facts and figures (online publication)
- All pages on education and training

Publications
- The EU has reached its target for share of persons aged 30 to 34 with tertiary education, News release April 2019
- Being young in Europe today — statistical book
- Key data on education in Europe 2012 — statistical book
- Infographic Young Europeans

Tables
- Education and training (t_educ), see:
  - Education and training outcomes (t_educ_outc)
    - Employment rates of recent graduates (tps00053)
  - EU benchmark indicators on education and training
Database

- **Education and training (educ)**, see:
  
  Education and training outcomes (educ_outc)
  
  Transition from education to work (edatt)
    
    Labour status of young people by years since completion of highest level of education (edatt2)
    
    Employment rates of young people not in education and training by sex, educational attainment level and years since completion of highest level of education (edat_lfse_24)
    
    Employment rates of young people not in education and training by sex, educational attainment level, years since completion of highest level of education and citizenship (edat_lfse_31)
    
    Employment rates of young people not in education and training by sex, educational attainment level, years since completion of highest level of education and country of birth (edat_lfse_32)
    
    Employment rates of young people not in education and training by sex, educational attainment level, years since completion of highest level of education and NUTS 2 regions (edat_lfse_33)
    
    Employment rates of young people not in education and training by sex, educational attainment level, years since completion of highest level of education and degree of urbanisation (edat lfse 34)
  
  Dedicated section

- **Education and training**
- **Employment and unemployment (LFS)**
- **Europe 2020 indicators**
- **Skills related statistics**

Methodology

- **Educational attainment level and transition from education to work** (ESMS metadata file — edat1_esms)
- **Employment rates of recent graduates** (indicator profile (ESMS — tps00053))

External links

- **European Commission — An agenda for new skills and jobs**
- **European Commission — Education and training — strategic framework for education and training**
- **European Commission — Education and training — vocational education and training**
- **European Commission — EU skills panorama**
- **European Commission — Youth policies**