

# Tertiary education statistics

Statistics Explained

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This article presents statistics on [tertiary education](#) ( [ISCED](#) levels 5-8) in the [European Union \(EU\)](#) and forms part of an [online publication](#) on [education](#) and training in the EU. Tertiary education — provided by universities and other higher education institutions — is the level of education following secondary schooling. It is seen to play an essential role in society, by fostering innovation, increasing economic development and growth, and improving more generally the well-being of citizens. Some European universities are among the most prestigious in the world.

Many commentators predict that in the coming years there will be increased demand for highly skilled people. Driven by digital technology, jobs are becoming more flexible and complex. This has resulted in a growing number of employers seeking staff with the necessary capacities to manage complex information, think autonomously, be creative, use resources in a smart and efficient manner, as well as communicate effectively.

A relatively large number of students in tertiary education are internationally mobile and study abroad: an analysis of this phenomenon is available in a [separate article](#) .

## Participation by level

Table 1 presents data on the number of students in each of four [levels of tertiary education](#) . Bachelor's, master's and doctoral levels of tertiary education are found in all EU Member States, while short-cycle tertiary education, which is typically vocationally-oriented (occupationally-specific) to prepare students for the labour market, is not part of the education system in Bulgaria, Estonia, Greece, Lithuania, Romania and Finland, nor in Liechtenstein, Montenegro, North Macedonia or Serbia. It is also quite uncommon — accounting for less than 1.0 % of the total number — in several others, namely Germany, Croatia, Poland, Czechia and Italy.

In the [EU-27](#) there were 17.5 million tertiary education students in 2018 (see Table 1). In 2018, Germany — the most populous EU-27 Member State — had 3.1 million tertiary education students, which was the highest number in the EU-27 and equivalent to 17.9 % of the EU-27 total. France (15.0 % of the total), Spain (11.7 %), Italy (10.8 %) and Poland (8.5 %) had the next largest tertiary student populations, followed by the Netherlands where 5.1 % of the EU-27's tertiary students studied.

Among the 17.5 million tertiary education students in the EU-27, 6.8 % were following short-cycle tertiary courses, 59.9 % were studying for bachelor's degrees, 29.5 % for master's degrees and 3.8 % for doctoral degrees. In other words, students of bachelor's and master's degrees accounted for 89.4 % of the total. Notably higher shares for these two levels were reported for Poland, Bulgaria (both 97.2 %), Lithuania (97.7 %), Croatia and Italy (both 97.8 %) and notably lower shares for Luxembourg (79.3 %), Latvia (79.0 %), France (78.2 %), Austria (77.8 %) and Spain (75.6 %).

Short-cycle tertiary courses were most common in Spain and France where they accounted for around one fifth of all tertiary students (20.2 % and 19.3 % respectively); they were also relatively common in Latvia and Austria where they accounted for 18.3 % and 17.5 %. In Turkey, short-cycle tertiary courses were even more

common as more than one third (36.6 %) of all tertiary students were enrolled in such courses.

More students were studying for bachelor's degrees in 2018 than for any other level of tertiary education in each of the EU-27 Member States. Indeed, France, Luxembourg, Austria and Cyprus were the only Member States where fewer than 50 % of all tertiary students were studying for bachelor's degrees. By contrast, in Lithuania (74.8 %) and the Netherlands (75.2 %), more than three quarters of tertiary students were studying for bachelor's degrees and this share was even higher in Greece (86.0 %); among the non-member countries shown in Table 1, particularly high shares were also recorded for Montenegro (94.3 %) and North Macedonia (94.7 %).

Less than one fifth of all tertiary students were studying for a master's degrees in 2018 in Belgium, Spain and Ireland, with this share around one tenth in Greece. A share just below one fifth was also observed in the United Kingdom, while the four candidate countries for which data are available also recorded relatively low shares (below one tenth of all tertiary education students in three of these). By contrast, around one third of tertiary students were studying for master's degrees in Portugal, Sweden and Germany, with higher shares in Czechia, Luxembourg, Italy, France, Croatia, Slovakia and Cyprus (where the share was close to two fifths).

Germany had by far the highest number of students studying for doctoral degrees in 2018 (200 000). This was more than twice the number of students studying for a doctoral degree in any of the other EU-27 Member States; the next highest counts were recorded in Spain (85 000) and France (66 000). The highest share of tertiary students studying for doctoral degrees in 2018 among the EU-27 Member States was 9.8 % in Luxembourg, while a higher share was recorded in Liechtenstein (18.9 %) — see Table 1. Aside from these relatively small countries, the next highest shares (among the EU-27 Member States) were recorded in Czechia (6.8 %), Germany (6.4 %) and Finland (6.3 %), while among the non-member countries shown in Table 1 a share of 8.2 % was recorded in Switzerland. Within the EU-27, the lowest share of doctoral students in the total number of tertiary education students was observed in Malta (1.0 %); lower shares were recorded in North Macedonia and Montenegro.

## Participation of men and women in tertiary education

In 2018, women accounted for 53.7 % of all tertiary students in the EU-27. The share of women among tertiary students was slightly higher among those studying for master's degrees (56.9 %) and almost the same for those studying for bachelor's degrees (53.1 %). For people following short-cycle courses and doctoral studies, however, the majority of students were men: 51.5 % of short-cycle tertiary students were men as were 52.0 % of doctoral students.

In 2018, three fifths (60.1 %) of all tertiary students in Sweden were women, while the share was close to this level in Poland, Slovakia and Estonia. Women were also in a majority among tertiary students in all of the other EU-27 Member States except for Germany (where they accounted for 48.8 % of tertiary students) and Greece (48.7 %). In Switzerland, Turkey and Liechtenstein, female tertiary students were also in a minority.

Focusing on students studying for bachelor's degrees, Cyprus (46.6 % share for women) Germany (46.7 %) and Greece (47.4 %) were the only EU-27 Member States where there were more men than women studying at this educational level in 2018; this was again also the case in Switzerland, Turkey and Liechtenstein. The highest share of female students among those studying for bachelor's degrees was recorded in Sweden (64.0 %). Among students studying for master's degrees, women were in the majority in all of the EU-27 Member States, but in a minority in Turkey and Liechtenstein. The highest female shares were recorded in Cyprus, Poland, Slovenia, the [Baltic Member States](#) , Croatia and Slovakia, where women accounted for more than 60.0 % of the total number of students studying for a master's degree.

For the two tertiary education levels with smaller student populations the situation was more mixed. For short-cycle courses, 9 out of 21 EU-27 Member States for which data are available had more male than female students, while men were in a majority among doctoral level students in just over half (14 out of 27) of the Member States.

Only in a few Member States was an almost balanced sex structure observed for any of the tertiary education levels in 2018. This occurred for short-cycle courses in Sweden and Ireland and for doctoral level studies in Italy, Spain, Romania and the Netherlands.

## Number of tertiary education students by sex and level of education, 2018

(thousands)

	Tertiary total			Short-cycle tertiary			Bachelor's or equivalent			Master's or equivalent			Doctoral or equivalent		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>EU-27</b>	<b>17 502.0</b>	<b>8 098.5</b>	<b>9 403.5</b>	<b>1 198.8</b>	<b>617.3</b>	<b>581.5</b>	<b>10 487.6</b>	<b>4 913.9</b>	<b>5 573.7</b>	<b>5 155.4</b>	<b>2 224.2</b>	<b>2 931.2</b>	<b>660.3</b>	<b>343.2</b>	<b>317.1</b>
Belgium	515.5	229.1	286.5	22.7	8.9	13.9	372.7	164.0	208.7	102.8	46.9	55.9	17.3	9.3	8.1
Bulgaria	236.3	109.5	126.9	–	–	–	155.1	74.6	80.5	74.7	31.7	43.0	6.6	3.1	3.4
Czechia	329.0	141.2	187.8	1.0	0.4	0.6	193.6	83.4	110.2	112.0	45.0	67.0	22.5	12.4	10.0
Denmark	310.9	135.2	175.7	35.6	19.1	16.5	195.8	80.7	115.2	70.0	30.8	39.2	9.4	4.6	4.9
Germany (*)	3 127.9	1 600.5	1 527.5	0.3	0.1	0.2	1 872.7	997.5	875.2	1 054.5	491.5	563.0	200.4	111.4	89.0
Estonia	45.8	18.9	26.9	–	–	–	28.7	12.3	16.4	14.6	5.5	9.1	2.5	1.1	1.4
Ireland	231.2	111.0	120.2	19.9	9.8	10.1	168.9	81.9	87.0	33.9	15.3	18.6	8.5	4.0	4.5
Greece	766.9	393.1	373.8	–	–	–	659.5	346.8	312.7	78.1	31.3	46.8	29.2	14.9	14.3
Spain	2 051.8	952.6	1 099.2	414.4	216.5	197.9	1 212.0	552.2	659.9	339.9	141.2	198.8	85.5	42.8	42.6
France	2 618.7	1 192.0	1 426.7	505.1	263.5	241.6	1 058.5	433.4	625.1	989.1	460.1	528.9	66.1	35.0	31.1
Croatia	164.8	70.8	94.0	0.1	0.0	0.0	97.6	45.3	52.3	63.6	23.9	39.7	3.6	1.6	1.9
Italy	1 896.0	844.3	1 051.7	13.4	9.7	3.7	1 140.6	527.8	612.9	713.6	292.7	420.9	28.3	14.2	14.2
Cyprus	47.2	22.1	25.0	4.6	3.1	1.5	22.6	12.1	10.5	18.4	6.3	12.1	1.5	0.6	0.9
Latvia	81.6	34.2	47.4	14.9	6.0	8.9	46.2	20.6	25.5	18.3	6.7	11.7	2.2	0.9	1.3
Lithuania	118.3	51.5	66.7	–	–	–	88.5	40.5	47.9	27.1	9.8	17.2	2.7	1.2	1.6
Luxembourg	7.0	3.4	3.7	0.8	0.3	0.4	3.1	1.4	1.6	2.5	1.2	1.3	0.7	0.4	0.3
Hungary	283.4	130.7	152.6	12.2	4.7	7.5	183.5	87.4	96.1	79.9	34.6	45.3	7.7	4.0	3.6
Malta	15.2	6.7	8.5	2.1	0.7	1.4	8.6	4.0	4.6	4.5	2.0	2.5	0.1	0.1	0.1
Netherlands	889.5	426.3	463.2	25.0	11.4	13.7	668.8	324.9	343.9	180.0	82.1	97.9	15.7	8.0	7.7
Austria	430.2	202.4	227.8	75.2	35.0	40.2	199.2	93.9	105.3	135.3	62.4	73.0	20.4	11.1	9.3
Poland	1 492.9	608.1	884.8	0.2	0.0	0.2	986.7	429.6	557.2	464.6	159.9	304.7	41.3	18.6	22.7
Portugal	356.4	165.8	190.6	12.8	8.0	4.8	205.2	93.1	112.0	118.2	55.0	63.2	20.2	9.7	10.6
Romania	538.9	247.0	291.8	–	–	–	350.3	168.7	181.6	168.9	68.3	100.6	19.8	10.1	9.7
Slovenia	76.5	32.5	44.0	10.4	6.2	4.1	41.8	17.2	24.6	21.5	7.8	13.8	2.8	1.3	1.5
Slovakia	144.4	59.2	85.2	2.6	0.9	1.7	79.0	33.2	45.8	55.8	21.5	34.3	7.0	3.7	3.3
Finland	294.5	138.2	156.3	–	–	–	207.3	100.7	106.6	68.6	28.7	39.9	18.6	8.8	9.8
Sweden	431.1	172.0	259.1	25.6	13.0	12.6	241.0	86.7	154.3	144.8	62.1	82.7	19.7	10.2	9.5
United Kingdom	2 467.1	1 064.7	1 402.4	284.2	115.4	168.8	1 621.0	714.5	906.5	450.6	177.5	273.0	111.3	57.2	54.1
Iceland	17.8	6.5	11.3	0.6	0.3	0.3	12.2	4.6	7.6	4.4	1.4	3.1	0.6	0.3	0.4
Liechtenstein	0.9	0.5	0.3	–	–	–	0.4	0.2	0.2	0.3	0.2	0.1	0.2	0.1	0.0
Norway	288.7	121.1	167.6	8.6	7.1	1.5	199.2	79.1	120.2	72.4	30.9	41.5	8.5	4.0	4.5
Switzerland	306.7	153.9	152.8	4.2	1.6	2.6	207.3	104.8	102.5	70.1	34.0	36.0	25.2	13.5	11.7
Montenegro	23.8	10.6	13.2	–	–	–	22.5	10.1	12.4	1.3	0.5	0.8	0.1	0.0	0.0
North Macedonia	60.1	26.8	33.4	–	–	–	56.9	25.3	31.7	2.8	1.3	1.5	0.4	0.2	0.2
Serbia	256.2	111.3	144.9	–	–	–	197.9	88.6	109.3	46.8	17.8	29.0	11.5	4.9	6.6
Turkey	7 560.4	4 047.3	3 513.1	2 768.8	1 424.4	1 344.4	4 112.6	2 228.8	1 883.8	583.9	339.5	244.4	95.1	54.6	40.5

(\*) Doctoral or equivalent: rounded to the nearest hundred.

(–) not applicable

Source: Eurostat (online data code: educ\_uoe\_enrt01)

eurostat 

Table 1: Number of tertiary education students by sex and level of education, 2018 (thousands)

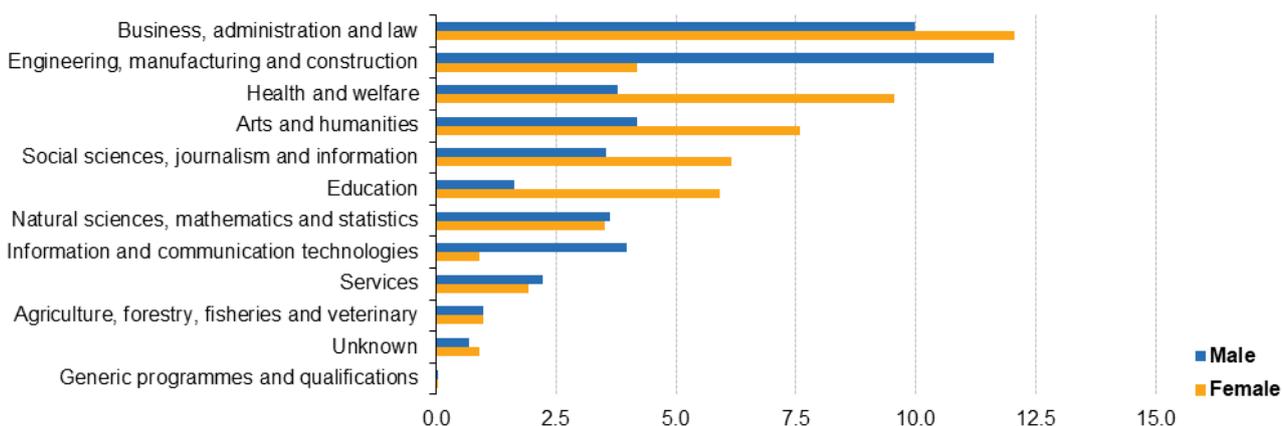
Source: Eurostat (educ\_uoe\_enrt01)

### Fields of education

Across the EU-27, more than one fifth (22.0 %) of all students in tertiary education in 2018 were studying business, administration or law. Women accounted for a majority of the total number of students within this **field of education** — see Figure 1. The second most common field of education was engineering, manufacturing and construction-related studies which accounted for 15.8 % of all tertiary education students. In this field, almost three quarters of all students were male. Some 11.6 % of all tertiary education students were men studying in this field, compared with 4.2 % that were women studying in this field, a difference of 7.4 **percentage points**. The third largest field of study was health and welfare, with a 13.3 % share of all tertiary education students. In this field, women accounted for close to three quarters of the total number of tertiary students. Nearly one tenth (9.6 %) of all tertiary education students were women studying in this field, compared with 3.8 % that were men studying in this field, a difference of 5.8 percentage points.

Among the remaining fields of study shown in Figure 1, there was a relatively high share of female students among those studying education (women accounted for nearly four fifths of the total number of students) and those studying arts and humanities or social sciences, journalism and information (each between three fifths and two thirds). By contrast, aside from engineering, manufacturing and construction, there was a relatively high share of men studying information and communication technologies.

## Distribution of tertiary education students by broad field and sex, EU-27, 2018 (%)



Note: ranked on the total (male and female) share of students in each broad field.

Source: Eurostat (online data code: educ\_uoe\_enrt03)

eurostat 

**Figure 1: Distribution of tertiary education students by broad field and sex, EU-27, 2018 (%)**  
Source: Eurostat (educ\_uoe\_enrt03)

### Graduates

Approximately 4.0 million students graduated from tertiary education in the EU-27 in 2018. France (796 000) had the largest number of tertiary graduates in 2018, some way ahead of Germany (565 000; note that the figures shown for Germany exclude graduates of vocational academies), Poland (470 000) and Spain (461 000). The relatively high number of graduates in France may, at least to some extent, reflect a shorter average course length; for example, France had the second highest proportion of tertiary students attending short-cycle courses of any EU-27 Member State.

## Number of tertiary education graduates in each field of education, 2018

(thousands)

	Total	Generic programmes and qualifications	Education	Arts and humanities	Social sciences, journalism and information	Business, administration and law	Natural sciences, mathematics and statistics	Information and communication technologies	Engineering, manufacturing and construction	Agriculture, forestry, fisheries and veterinary	Health and welfare	Services	Unknown
<b>EU-27</b>	3 984.7	0.7	412.3	392.4	365.5	979.2	254.8	151.4	606.5	75.5	546.5	188.9	11.0
Belgium	116.7	0.0	9.2	10.9	11.9	23.7	4.3	2.5	13.0	2.3	33.6	1.6	3.7
Bulgaria	54.5	0.0	5.1	3.6	7.1	17.4	1.7	2.1	6.8	1.1	5.1	4.6	0.0
Czechia	76.2	0.0	8.7	6.6	8.3	15.1	4.4	3.8	11.8	2.6	9.3	5.5	0.0
Denmark	81.6	0.0	4.3	9.4	8.2	20.9	4.4	3.9	9.8	1.0	17.0	2.5	0.1
Germany (*)	564.7	0.0	63.4	64.3	42.4	128.1	51.1	27.5	120.8	10.3	41.9	13.9	0.9
Estonia	9.1	0.0	0.7	1.2	0.7	2.1	0.6	0.6	1.3	0.2	1.1	0.6	0.0
Ireland	84.0	0.7	7.2	9.8	4.9	22.5	6.4	6.7	7.2	1.2	14.1	3.4	0.0
Greece	70.3	0.0	5.6	7.9	9.8	15.4	6.4	2.2	11.3	1.9	7.8	2.1	0.0
Spain	461.1	0.0	78.5	41.1	32.1	89.1	24.0	18.1	60.6	4.9	77.5	34.8	0.4
France	796.0	0.0	32.8	68.6	58.7	272.7	63.4	27.8	110.9	12.5	115.7	31.4	1.6
Croatia	34.4	0.0	2.4	3.0	2.6	8.7	1.8	1.4	5.9	1.2	4.1	3.4	0.0
Italy	399.8	0.0	27.8	67.3	57.0	70.6	30.2	5.1	61.4	10.1	57.9	10.6	1.9
Cyprus	9.1	0.0	1.8	0.6	0.7	3.6	0.2	0.2	0.9	0.1	0.6	0.5	0.0
Latvia	15.4	0.0	1.2	1.1	1.4	4.4	0.4	0.7	2.0	0.3	2.7	1.2	0.0
Lithuania	26.3	0.0	1.6	2.2	2.4	6.7	1.1	0.8	5.1	0.9	4.7	0.7	0.0
Luxembourg	1.8	0.0	0.2	0.2	0.2	0.7	0.1	0.1	0.1	0.0	0.1	0.0	0.0
Hungary	65.1	0.0	9.2	5.9	6.7	16.5	2.5	3.0	9.1	2.6	5.6	3.1	0.8
Malta	4.1	0.0	0.2	0.4	0.4	1.3	0.2	0.3	0.4	0.0	0.8	0.1	0.0
Netherlands	159.6	0.0	15.4	13.8	21.4	43.5	10.2	4.5	13.2	2.1	27.3	8.1	0.1
Austria	84.3	0.0	9.8	6.8	6.1	20.5	5.1	3.7	17.3	1.3	7.1	6.4	0.1
Poland	470.0	0.0	96.7	33.0	42.0	110.3	15.5	17.9	68.4	8.4	41.9	34.8	1.2
Portugal	79.8	0.0	3.5	8.0	8.9	16.2	4.9	1.7	15.6	1.9	14.0	5.0	0.0
Romania	126.3	0.0	5.6	11.5	11.6	33.8	6.5	7.3	21.6	5.3	16.9	6.0	0.0
Slovenia	16.7	0.0	1.9	1.5	1.5	3.4	1.1	0.6	2.9	0.5	2.0	1.3	0.0
Slovakia	44.5	0.0	6.1	3.4	5.2	8.9	2.5	1.8	5.5	1.0	7.3	2.6	0.0
Finland	57.8	0.0	3.9	6.1	4.1	10.9	2.7	4.1	9.5	1.2	12.7	2.7	0.0
Sweden	75.7	0.0	9.8	4.3	8.9	12.4	3.1	3.2	13.8	0.6	17.6	1.9	0.1
United Kingdom	817.3	4.8	67.5	120.0	94.5	181.8	113.1	32.8	74.1	7.5	120.1	1.1	0.0
Iceland	4.4	0.0	0.6	0.4	0.7	1.0	0.2	0.2	0.4	0.1	0.7	0.1	0.0
Liechtenstein	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	54.4	0.1	8.9	4.4	6.0	9.3	2.5	2.1	7.3	0.4	10.8	2.7	0.0
Switzerland	89.5	0.0	8.7	6.6	5.9	25.3	6.2	2.3	14.1	1.3	13.7	4.8	0.6
North Macedonia	9.8	0.0	0.4	1.3	0.6	3.1	0.4	0.6	1.3	0.1	1.3	0.6	0.0
Serbia	45.4	0.0	3.7	4.3	4.7	10.5	2.4	2.6	7.8	1.1	4.4	4.0	0.0
Turkey	845.9	0.0	78.5	93.7	66.2	260.6	20.7	14.1	129.6	19.3	108.5	54.6	0.0

(\*) Excluding graduates of vocational academies.

Source: Eurostat (online data code: educ\_uoe\_grad02)

eurostat 

**Table 2: Number of tertiary education graduates in each field of education, 2018 (thousands)**  
Source: Eurostat (educ\_uoe\_grad02)

In 2018, an analysis of the number of graduates in the EU-27 by field of education shows that almost one quarter (24.6 %) of all tertiary students had graduated in business, administration or law. This share was higher than the equivalent share (22.0 %) of tertiary education students still in the process of studying within this field in 2018, suggesting that fewer students had started this type of study in recent years, or that either drop-out rates or average course lengths were higher in other fields. The differences in these shares might also depend on the magnitude of the respective population cohorts. A similar situation was observed for education studies, which made up 10.3 % of graduates from 7.6 % of the tertiary education student population, as well as for services (4.7 % of graduates compared with 4.1 % of students) and health and welfare (13.7 % of graduates compared with 13.3 % of students). The reverse situation was observed for the other fields of education: arts and humanities (9.8 % of graduates and 11.8 % of students); information and communication technologies (3.8 % of graduates and 4.9 % of students); engineering, manufacturing and construction-related studies (15.2 % of graduates and 15.8 % of students); natural sciences, mathematics and statistics (6.4 % of graduates and 7.2 % of students); social sciences, journalism and information (9.2 % of graduates and 9.7 % of students); agriculture, forestry, fisheries and veterinary (1.9 % of graduates and 2.0 % of students).

## Distribution of tertiary education graduates by broad field of education, 2018

(%)

	Generic programmes and qualifications	Education	Arts and humanities	Social sciences, journalism and information	Business, administration and law	Natural sciences, mathematics and statistics	Information and communication technologies	Engineering, manufacturing and construction	Agriculture, forestry, fisheries and veterinary	Health and welfare	Services	Unknown
<b>EU-27</b>	0.0	10.3	9.8	9.2	24.6	6.4	3.8	15.2	1.9	13.7	4.7	0.3
Belgium	0.0	7.9	9.3	10.2	20.3	3.7	2.1	11.2	2.0	28.8	1.3	3.2
Bulgaria	0.0	9.4	6.5	13.1	31.8	3.1	3.8	12.4	1.9	9.4	8.5	0.0
Czechia	0.0	11.4	8.7	11.0	19.9	5.7	4.9	15.5	3.4	12.2	7.3	0.0
Denmark	0.0	5.2	11.5	10.0	25.6	5.4	4.8	12.0	1.2	20.9	3.1	0.2
Germany (*)	0.0	11.2	11.4	7.5	22.7	9.0	4.9	21.4	1.8	7.4	2.5	0.2
Estonia	0.0	7.3	13.1	8.0	22.8	6.3	6.7	14.8	1.7	12.5	6.8	0.0
Ireland	0.8	8.6	11.6	5.8	26.7	7.6	7.9	8.6	1.5	16.8	4.1	0.0
Greece	0.0	7.9	11.2	13.9	21.9	9.1	3.1	16.1	2.7	11.1	3.0	0.0
Spain	0.0	17.0	8.9	7.0	19.3	5.2	3.9	13.1	1.1	16.8	7.5	0.1
France	0.0	4.1	8.6	7.4	34.3	8.0	3.5	13.9	1.6	14.5	3.9	0.2
Croatia	0.0	6.9	8.7	7.6	25.2	5.1	4.0	17.2	3.6	11.8	9.9	0.0
Italy	0.0	6.9	16.8	14.3	17.7	7.6	1.3	15.4	2.5	14.5	2.6	0.5
Cyprus	0.0	19.6	7.0	7.2	39.0	2.5	2.6	10.1	0.8	6.2	5.1	0.0
Latvia	0.0	7.7	7.1	8.9	28.5	2.7	4.7	12.7	2.2	17.5	8.0	0.0
Lithuania	0.0	5.9	8.5	9.0	25.6	4.3	3.1	19.4	3.3	18.0	2.8	0.0
Luxembourg	0.0	10.1	10.0	10.7	42.5	5.8	5.8	7.2	0.2	6.8	0.9	0.0
Hungary	0.0	14.1	9.0	10.2	25.4	3.9	4.6	14.0	4.0	8.6	4.8	1.3
Malta	0.0	5.2	9.8	10.5	31.3	4.7	7.0	8.9	0.3	19.9	2.3	0.0
Netherlands	0.0	9.7	8.7	13.4	27.2	6.4	2.8	8.2	1.3	17.1	5.1	0.1
Austria	0.0	11.6	8.1	7.2	24.3	6.1	4.4	20.6	1.6	8.4	7.6	0.1
Poland	0.0	20.6	7.0	8.9	23.5	3.3	3.8	14.5	1.8	8.9	7.4	0.2
Portugal	0.0	4.4	10.1	11.2	20.3	6.1	2.2	19.6	2.3	17.5	6.3	0.1
Romania	0.0	4.5	9.1	9.2	26.7	5.2	5.8	17.1	4.2	13.4	4.8	0.0
Slovenia	0.0	11.1	9.0	9.3	20.5	6.6	3.5	17.2	3.0	12.1	7.8	0.0
Slovakia	0.0	13.7	7.6	11.8	20.1	5.7	3.9	12.4	2.3	16.5	6.0	0.0
Finland	0.0	6.8	10.5	7.1	18.8	4.6	7.0	16.5	2.1	21.9	4.6	0.0
Sweden	0.0	13.0	5.6	11.8	16.4	4.1	4.3	18.3	0.8	23.2	2.4	0.1
United Kingdom	0.6	8.3	14.7	11.6	22.2	13.8	4.0	9.1	0.9	14.7	0.1	0.0
Iceland	0.0	13.1	9.9	15.5	21.8	5.0	5.1	8.6	1.2	16.6	3.3	0.0
Liechtenstein	0.0	0.0	0.0	0.0	76.7	0.0	0.0	19.6	0.0	3.7	0.0	0.0
Norway	0.2	16.3	8.1	11.0	17.1	4.5	3.9	13.4	0.8	19.8	4.9	0.0
Switzerland	0.0	9.7	7.4	6.6	28.3	6.9	2.5	15.7	1.5	15.4	5.3	0.7
North Macedonia	0.0	3.7	13.7	6.3	31.8	4.0	6.3	13.3	1.5	13.4	5.9	0.0
Serbia	0.0	8.1	9.4	10.3	23.1	5.2	5.7	17.3	2.5	9.7	8.8	0.0
Turkey	0.0	9.3	11.1	7.8	30.8	2.4	1.7	15.3	2.3	12.8	6.5	0.0

(\*) Excluding graduates of vocational academies.

Source: Eurostat (online data code: educ\_uoe\_grad02)

eurostat 

**Table 3: Distribution of tertiary education graduates by broad field of education, 2018 (%)**  
Source: Eurostat (educ\_uoe\_grad02)

Across the EU-27 Member States, there was a remarkable variability in the distribution of tertiary graduates by field of education in 2018. The share of graduates in social sciences, journalism and information was relatively low in Ireland (5.8 %), while much higher shares were registered in Bulgaria (13.1 %), the Netherlands (13.4 %), Greece (13.9 %) and Italy (14.3 %). In a similar vein, the share of graduates in health and welfare was relatively low in Cyprus, Luxembourg and Germany (note that graduates of vocational academies are excluded), while it was relatively high in Malta (19.9 %), Denmark (20.9 %), Finland (21.9 %), Sweden (23.2 %) and particularly Belgium (28.8 %). For engineering, manufacturing and construction studies, there were relatively low shares of graduates in this field in Luxembourg, the Netherlands, Ireland and Malta (the only Member States to record single-digit shares) whereas relatively high shares were recorded in Lithuania (19.4 %), Portugal (19.6 %), Austria (20.6 %) and particularly Germany (21.4 %; again excluding graduates of vocational academies). Finally, the proportion of graduates in business, administration and law was relatively low in Sweden, Italy, Finland and Spain, while it was particularly high in France (34.3 %), Cyprus (39.0 %) and Luxembourg (42.5 %).

Within the EU-27, close to three fifths (57.7 %) of all graduates in 2018 were women. An analysis by sex of tertiary education graduates (as shown in Figure 2) is, unsurprisingly, quite similar to that for tertiary education students (as shown in Figure 1). The most notable divergences are the larger gender differences (in percentage point terms) for graduates than for enrolled students for the fields of business, administration and law, and education.

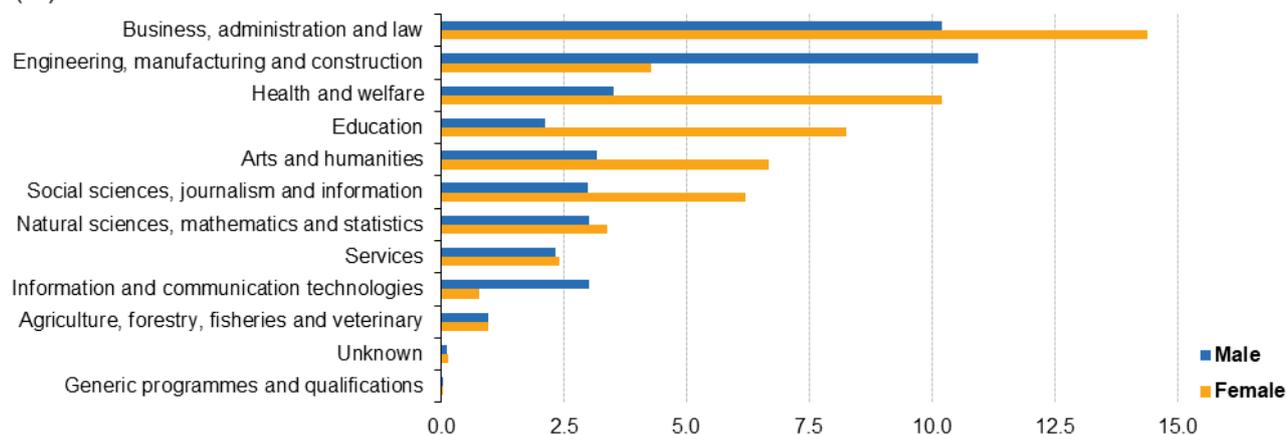
An analysis by field of education reveals that there were 1.4 times as many female graduates (compared with male graduates) for business, administration and law, while higher ratios were recorded for arts and humanities (2.1 times as many female graduates) and for social sciences, journalism and information (also 2.1 times as

many female graduates), rising to 2.9 times as many female graduates for health and welfare and peaking at 3.9 times as many female graduates for education (see Figure 2). By contrast, there were 2.6 times as many male (compared with female) graduates for engineering, manufacturing and construction-related fields and 3.9 times as many male graduates for information and communication technologies. In natural sciences, mathematics and statistics as well as in services the number of graduates was marginally higher for women than it was for men, while for agriculture, forestry, fisheries and veterinary fields the numbers of male and female graduates were approximately the same.

It can be seen that 10.9 % of all tertiary education graduates were men graduating from engineering, manufacturing or construction courses, compared with 4.3 % that were women graduating from this field, a difference of 6.7 percentage points. The same difference, but with higher shares for women, was observed for health and welfare (3.5 % of graduates were men graduating from this field compared with 10.2 % who were women graduating from this field). A slightly smaller difference was observed for the field of education, as the share of graduates from this field that were men (2.1 %) was 6.1 percentage points lower than the share of graduates that were women graduating from this field (8.2 %).

### Distribution of tertiary education graduates by broad field and sex, EU-27, 2018

(%)



Note: ranked on the total (male and female) share of graduates in each broad field.

Source: Eurostat (online data code: educ\_uoe\_grad02)

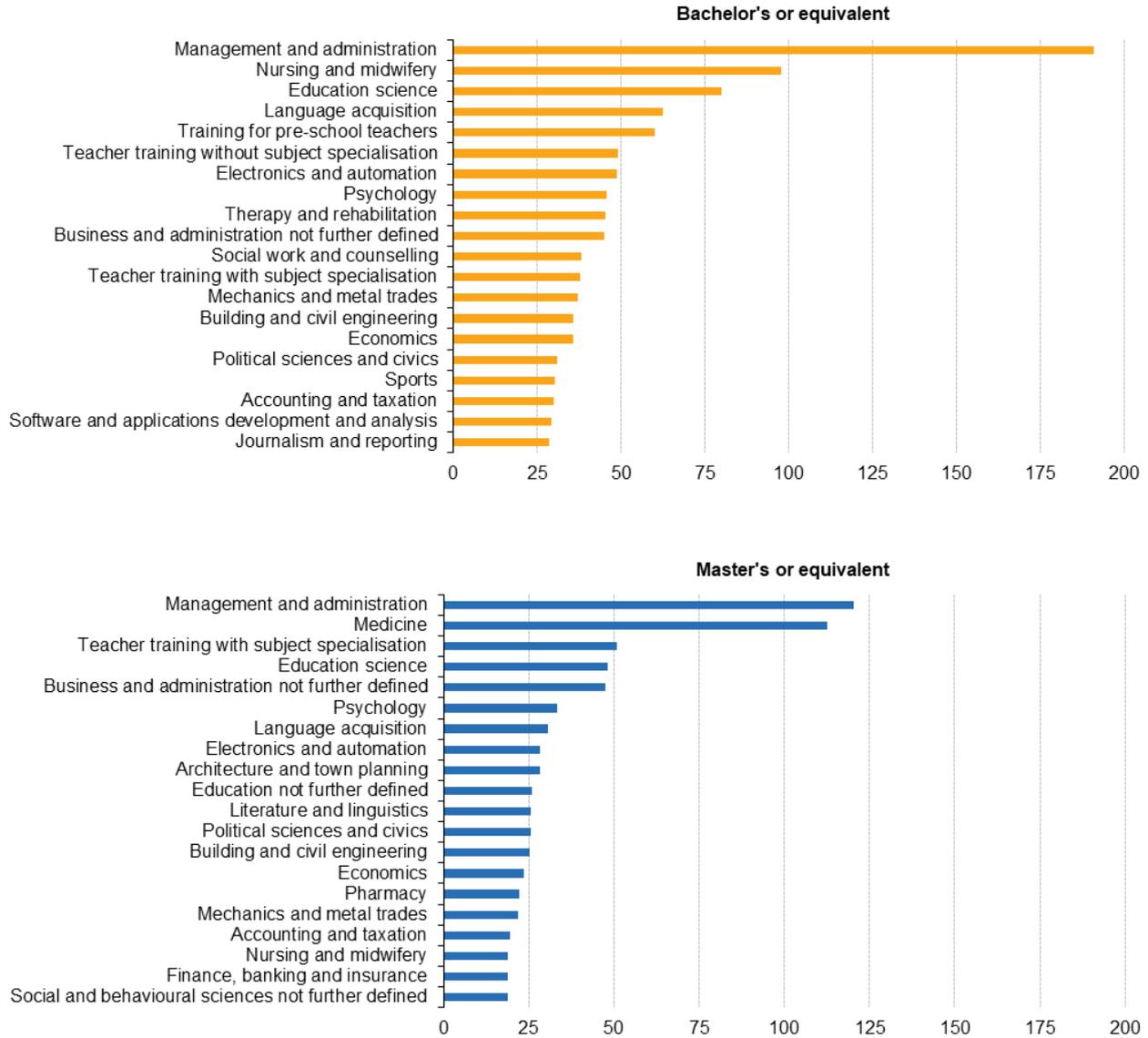
eurostat

**Figure 2: Distribution of tertiary education graduates by broad field and sex, EU-27, 2018 (%)**  
Source: Eurostat (educ\_uoe\_grad02)

A more detailed picture is presented in Figure 3, which shows the number of graduates with a bachelor's or a master's degree. While many subjects are offered at both bachelor's and master's levels, it is important to note that courses in some fields, for example medicine and law, may be offered in some Member States principally or exclusively as master's courses. In these cases, the number of graduates at the bachelor's levels may be small or even zero.

In 2018, the most frequently awarded degree — based on detailed fields of education — was for management and administration; across the EU-27, some 191 000 people in this field graduated with a bachelor's degree and 120 000 with a master's degree. Nursing and midwifery was the second most prevalent degree course for those graduating with a bachelor's degree (98 000), followed by education science (80 000). By contrast, medicine was the second most frequently awarded degree among those graduating with a master's degree (112 000), followed by teacher training with a subject specialisation (51 000) and then education science (48 000).

**Number of tertiary education graduates in each detailed field of education, EU-27, 2018**  
(thousands)



Note: the figure shows the top 20 detailed fields of education with the highest numbers of graduates for each type of tertiary degree, excluding residual fields of education.

Source: Eurostat (online data code: educ\_uoe\_grad02)

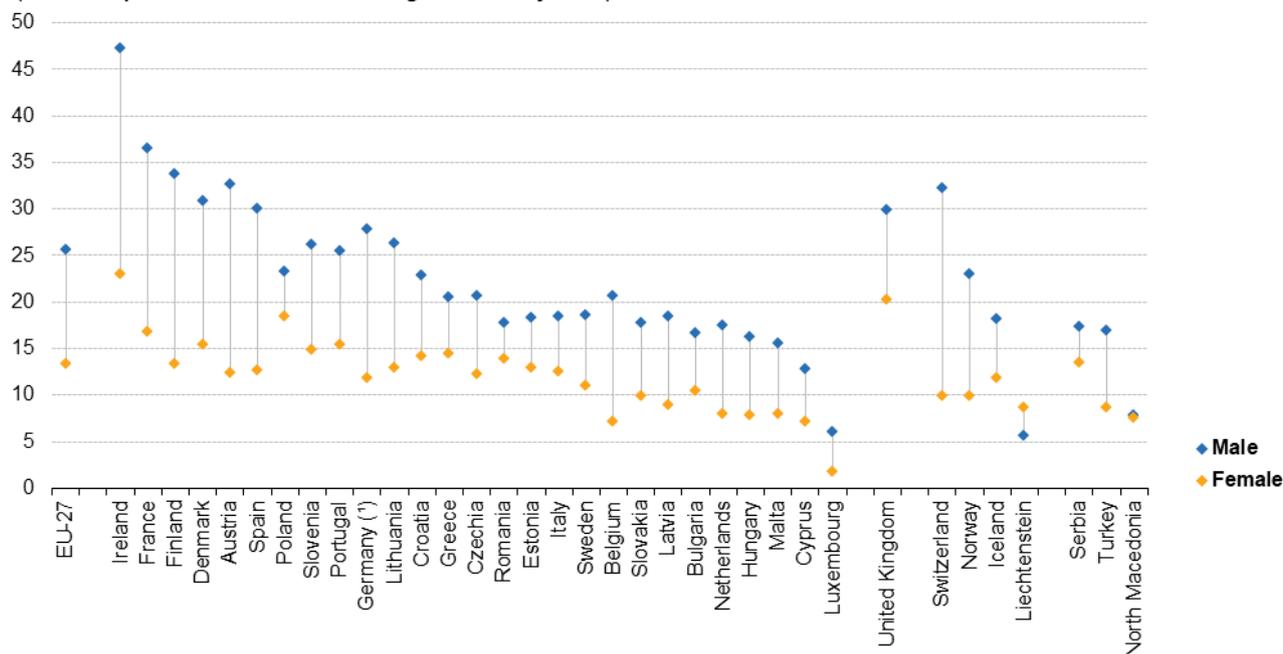


**Figure 3: Number of tertiary education graduates in each detailed field of education, EU-27, 2018 (thousands) Source: Eurostat (educ\_uoe\_grad02)**

Relative to the size of the population aged 20-29 years, the number of tertiary graduates in science, mathematics, computing, engineering, manufacturing and construction increased in recent years. Figure 4 shows this ratio for male and female graduates in 2018. There were almost twice as many male as female graduates in the EU-27: 25.6 per 1 000 male inhabitants aged 20-29 years for men and 13.4 per 1 000 female inhabitants aged 20-29 years for women. In relative terms, the gender gap for this field of education was most marked in Luxembourg and Belgium, where the number of male graduates was 3.4 and 2.9 times as high as the number of female graduates; there were also relatively large differences in Austria, Finland, Spain, Germany (excluding graduates of vocational academies), the Netherlands and France.

## Tertiary education graduates in natural sciences, mathematics and statistics, information and communication technologies, engineering, manufacturing and construction, by sex, 2018

(number per 1 000 inhabitants aged 20-29 years)



Note: ranked on the ratio for both sexes combined.

(\*) Excluding graduates of vocational academies.

Source: Eurostat (online data code: educ\_uoe\_grad04)

eurostat

**Figure 4: Tertiary education graduates in natural sciences, mathematics and statistics, information and communication technologies, engineering, manufacturing and construction, by sex, 2018 (number per 1 000 inhabitants aged 20-29 years) Source: Eurostat (educ\_uoe\_grad04)**

## Teaching staff and student-academic staff ratios

There were 1.35 million people teaching in tertiary education across the EU-27 in 2018 (see Table 4) of which a small minority provided short-cycle tertiary courses. More than three tenths (30.8 %) of the tertiary education teaching staff in the EU-27 were located in Germany, with just over one eighth in Spain (12.7 %).

In contrast to the teaching staff in primary and secondary education, where women were in the majority, the majority of tertiary education teaching staff were men. Almost three fifths (57.2 %) of the EU-27's teaching staff in tertiary education in 2018 were men, a share that neared two thirds in Greece (65.3 %) and was also above 60.0 % in Luxembourg, Malta, Italy, Czechia and Germany. By contrast, women accounted for a majority of the tertiary education teaching staff in Romania (51.3 %), Finland (51.9 %), Latvia (56.0 %) and Lithuania (56.1 %).

## Teaching staff in tertiary education by sex and level of education, 2018

(thousands)

	Tertiary total			Short-cycle tertiary			Other tertiary		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
EU-27 (*)	1 351.5	773.4	578.1	.	.	.	.	.	.
Belgium	31.3	16.2	15.2	.	.	.	.	.	.
Bulgaria	21.9	11.1	10.9	–	–	–	21.9	11.1	10.9
Czechia	18.8	11.6	7.2	0.1	0.0	0.0	18.7	11.6	7.1
Denmark	26.7	15.0	11.7	2.1	1.2	0.8	24.6	13.7	10.9
Germany	416.2	250.7	165.5	0.0	0.0	0.0	416.2	250.7	165.5
Estonia	4.4	2.2	2.1	–	–	–	4.4	2.2	2.1
Ireland (†)	9.9	5.4	4.4	.	.	.	.	.	.
Greece	17.3	11.3	6.0	–	–	–	17.3	11.3	6.0
Spain	171.9	96.5	75.4	36.3	18.0	18.4	135.5	78.5	57.0
France (‡)	115.6	64.8	50.8	25.6	12.3	13.3	90.0	52.5	37.5
Croatia	17.0	8.7	8.3	.	.	.	.	.	.
Italy	92.7	58.1	34.6	–	–	–	92.7	58.1	34.6
Cyprus	3.3	1.9	1.4	0.6	0.3	0.3	2.6	1.5	1.1
Latvia	7.2	3.1	4.0	1.1	0.3	0.7	6.1	2.8	3.3
Lithuania	11.4	5.0	6.4	–	–	–	11.4	5.0	6.4
Luxembourg	1.3	0.9	0.5	0.1	0.0	0.1	1.2	0.8	0.4
Hungary (‡)	25.2	14.9	10.3	1.0	0.6	0.4	20.7	11.8	9.0
Malta	1.9	1.2	0.7	0.2	0.2	0.1	1.7	1.1	0.6
Netherlands	69.8	37.8	32.0	1.7	0.9	0.8	68.1	36.8	31.2
Austria	62.7	35.9	26.8	9.7	4.6	5.1	53.0	31.3	21.7
Poland	95.0	52.3	42.7	0.1	0.0	0.0	95.0	52.3	42.7
Portugal (‡)	34.2	18.9	15.3	.	.	.	.	.	.
Romania	26.3	12.8	13.5	–	–	–	26.3	12.8	13.5
Slovenia	6.9	4.0	2.9	1.2	0.6	0.5	5.7	3.4	2.4
Slovakia	12.1	6.5	5.6	0.5	0.2	0.3	11.6	6.3	5.3
Finland	15.1	7.3	7.8	–	–	–	15.1	7.3	7.8
Sweden	35.5	19.5	16.0	0.4	0.2	0.2	35.1	19.3	15.9
United Kingdom	161.1	87.9	73.3	.	.	.	.	.	.
Liechtenstein	0.1	0.1	0.0	–	–	–	0.1	0.1	0.0
Norway	34.0	18.3	15.7	0.7	0.3	0.4	33.3	17.9	15.4
Switzerland	36.4	23.5	12.9	–	–	–	36.4	23.5	12.9
North Macedonia	4.1	2.2	2.0	–	–	–	4.1	2.2	2.0
Serbia	11.6	6.1	5.5	–	–	–	11.6	6.1	5.5
Turkey	158.1	87.9	70.2	19.9	11.7	8.2	138.2	76.2	62.0

(\*) Coverage deviations noted for Ireland, France and Portugal also apply.

(†) Excluding independent private institutions and academic staff in government dependent private institutions.

(‡) Excluding private institutions.

(§) Short-cycle tertiary education and other tertiary education: 2016.

(¶) Total tertiary education: includes post-secondary non-tertiary personnel giving courses in higher education institutions.

(.) not available

(–) not applicable

Source: Eurostat (online data code: educ\_uoe\_perp01)

eurostat 

**Table 4: Teaching staff in tertiary education by sex and level of education, 2018 (thousands)**  
Source: Eurostat (educ\_uoe\_perp01)

The [student-academic staff ratio](#) in tertiary education was highest among the EU-27 Member States in Greece (38.7; 2017 data), while ratios of at least 20 students per staff member in 2018 were also recorded in Cyprus, Belgium and Italy. By contrast, student-staff ratios were in single figures in Malta (9.4 students per staff member) and Luxembourg (4.4); this ratio was also relatively low in Norway.

## Student-academic staff ratios in tertiary education, 2018

(number of students per member of academic staff)

	Tertiary total	Short-cycle tertiary	Other tertiary
EU-27 (*) <sup>(*)</sup>	15.3	.	.
Belgium	21.0	.	.
Bulgaria (*)	11.5	–	11.5
Czechia	15.0	11.4	15.0
Denmark	15.6	18.6	15.3
Germany	12.0	12.2	12.0
Estonia	12.8	–	12.8
Ireland	.	.	.
Greece (*)	38.7	–	38.7
Spain	12.3	10.9	12.7
France (*) <sup>(*)</sup>	16.2	12.3	17.4
Croatia	12.5	.	12.8
Italy	20.3	–	20.3
Cyprus	22.0	15.5	23.2
Latvia	16.3	13.2	18.1
Lithuania	14.4	–	14.4
Luxembourg	4.4	8.7	4.0
Hungary (*)	11.5	12.8	13.7
Malta	9.4	7.9	9.6
Netherlands	14.6	12.5	14.7
Austria	13.8	8.0	15.8
Poland	13.8	9.8	13.8
Portugal (*)	14.3	.	.
Romania	19.8	–	19.8
Slovenia	14.4	22.2	13.7
Slovakia	11.4	7.2	11.6
Finland	15.3	–	15.3
Sweden	10.1	7.2	10.2
United Kingdom	15.4	.	.
Liechtenstein	11.9	–	11.9
Norway	9.4	11.4	9.3
North Macedonia	17.3	–	17.3
Serbia (*)	24.2	–	24.2
Turkey	25.1	56.8	20.6

(\*) 2017.

(\*) Excluding Ireland; coverage deviations noted for Bulgaria, France and Portugal also apply.

(\*) Excluding doctoral or equivalent students enrolled in scientific organisations.

(\*) Excluding private institutions.

(\*) Short-cycle tertiary education and other tertiary education: 2016.

(\*) Total tertiary education and other tertiary education: includes post-secondary non-tertiary personnel giving courses in higher education institutions.

(.) not available

(–) not applicable

Source: Eurostat (online data code: educ\_uoe\_perp04)

eurostat 

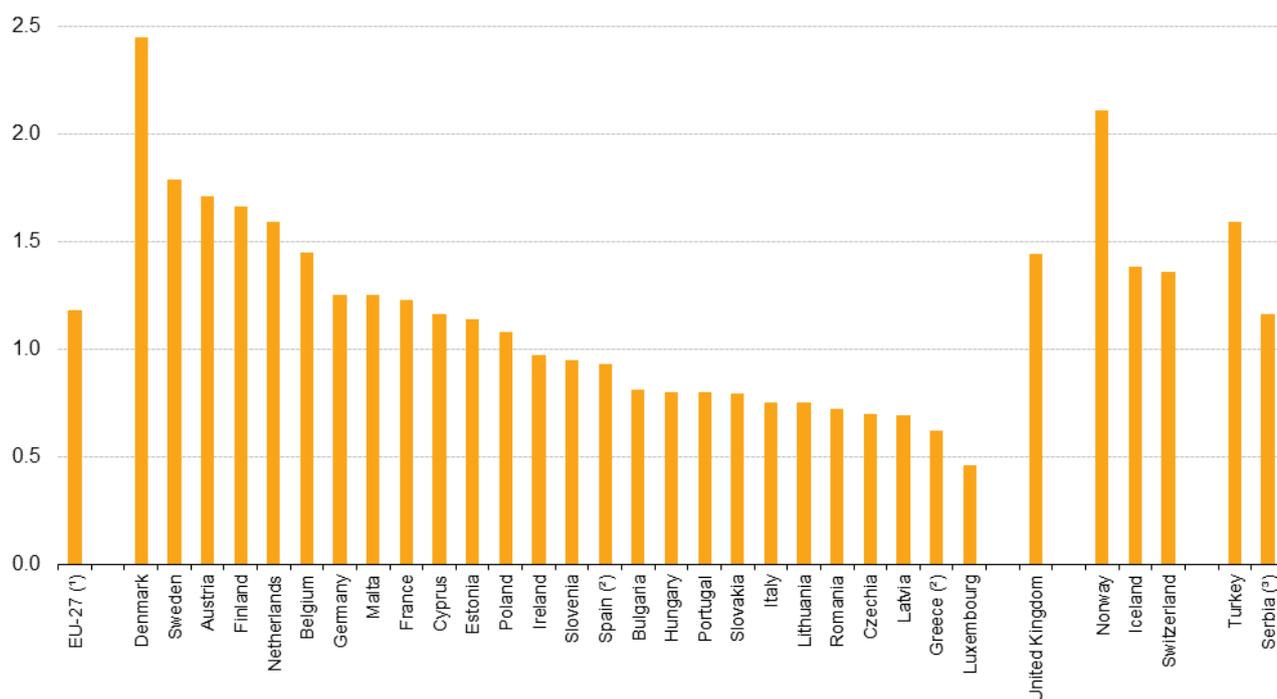
**Table 5: Student-academic staff ratios in tertiary education, 2018 (number of students per member of academic staff) Source: Eurostat (educ\_uoe\_perp04)**

## Finance

Data concerning [public expenditure](#) on tertiary education relative to [gross domestic product \(GDP\)](#) are available for 26 of the EU-27 Member States (no data for Croatia) — see Figure 5. This ratio ranged in 2017 from 0.5 % in Luxembourg, 0.6 % in Greece and 0.7 % in Czechia and Romania to 1.7 % in Finland and Austria, 1.8 % in Sweden, and a peak ratio of 2.5 % in Denmark. In 2017, the average ratio for the EU-27 (excluding Croatia) was 1.2 %.

## Public expenditure on tertiary education relative to GDP, 2017

(%)



Note: Croatia, not available.

(\*) Excluding Croatia.

(‡) Provisional.

(§) 2015.

Source: Eurostat (online data code: educ\_uoe\_fine06)

eurostat

Figure 5: Public expenditure on tertiary education relative to GDP, 2016 (%) Source: Eurostat (educ\_uoe\_fine06)

## Source data for tables and graphs

Tertiary education statistics: tables and figures

## Data sources

**Source** The standards for international statistics on education are set by three international organisations:

- the [United Nations Educational, Scientific, and Cultural Organization \(UNESCO\)](#) institute for statistics (UIS);
- the [Organisation for Economic Cooperation and Development \(OECD\)](#) ;
- [Eurostat](#) , the statistical office of the EU.

The source of data used in this article is a [joint UNESCO/OECD/Eurostat \(UOE\) data collection](#) on education statistics and this is the basis for the core components of Eurostat's database on education statistics; in combination with the joint data collection Eurostat also collects data on regional enrolments and foreign language learning.

[Regulation \(EC\) No 452/2008](#) of 23 April 2008 provides the legal basis for the production and development of EU statistics on education and [lifelong learning](#) . Two European Commission Regulations have been adopted concerning the implementation of the education and training data collection exercises. The first, [Commission Regulation \(EU\) No 88/2011](#) of 2 February 2011, concerned data for the school years 2010/2011 and 2011/2012, while the second, [Commission Regulation \(EU\) No 912/2013](#) of 23 September 2013, concerns data for school

years from 2012/2013 onwards.

More information about the joint data collection is available in an article on the [UOE methodology](#) .

**Classification** The [international standard classification of education \(ISCED\)](#) is the basis for international education statistics, describing different levels of education; it was first developed in 1976 by UNESCO and revised in 1997 and again in 2011. [ISCED 2011](#) distinguishes nine levels of education: early childhood education (level 0); primary education (level 1); lower secondary education (level 2); upper secondary education (level 3); post-secondary non-tertiary education (level 4); short-cycle tertiary education (level 5); bachelor’s or equivalent (level 6); master’s or equivalent (level 7); doctoral or equivalent (level 8). The first results based on ISCED 2011 were published in 2015 starting with data for the 2013 reference period for statistics on students and teaching staff and the 2012 reference period for statistics on expenditure. This classification forms the basis of all of the statistical information that is presented in this article.

Tertiary education builds on secondary education, providing learning activities in specialised fields of education. Tertiary education includes not only what is commonly understood as ‘academic’ education, but also includes advanced vocational or professional education. The content of programmes at tertiary level is more complex and advanced than at lower ISCED levels. One prerequisite of tertiary education is the successful completion of ISCED level 3 programmes that give direct access to first tertiary education programmes (access may also be possible from ISCED level 4 programmes). In addition to qualification requirements, entry into education programmes at these levels may depend on subject choice and/or grades achieved. Furthermore, it may be necessary to take and succeed in entrance examinations.

There is usually a clear hierarchy between qualifications granted by tertiary education programmes. The transition between programmes at tertiary level is, however, not always clearly distinguished and it may be possible to combine programmes and transfer credits from one programme to another. In certain cases, credits received from previously completed education programmes may also be counted towards the completion of a programme at a higher ISCED level. That said, the successful completion of ISCED level 7 is usually required for entry into ISCED level 8.

Eurostat data by fields of education were classified according to ISCED 1997 and ISCED 2011 classifications (which were the same in terms of the fields of education) until 2015. However, they were subsequently replaced by the [ISCED-F 2013](#) classification and Eurostat data from 2016 onwards are classified according to this classification (which has been used as the basis of the information presented within this article). The fields of education — as classified by ISCED-F 2013 — are broad domains, branches or areas of content covered by an education programme or qualification. The classification was designed principally to describe and categorise fields of education and training at the secondary, post-secondary and tertiary levels of formal education. It has a three-level hierarchy based on broad fields (the highest level), narrow fields (the second level) and detailed fields (the third level) of education. The 11 broad fields include: generic programmes and qualifications; education; arts and humanities; business, administration and law; natural sciences, mathematics and statistics; information and communication technologies; engineering, manufacturing and construction; agriculture, forestry, fisheries and veterinary; health and welfare; and services.

**Key concepts** Student-academic staff ratios for tertiary education are calculated by dividing the number of [full-time equivalent](#) students by the number of full-time equivalent members of academic staff; this ratio should not be confused with average class size, which refers to the number of students in a given course or classroom.

**Tables in this article use the following notation:**

:	not available, confidential or unreliable value;
–	not applicable.

## Context

### Bologna process

Since the introduction of the [Bologna process](#) (see the article on [Education and training statistics introduced](#)) a major expansion in higher education systems has taken place, accompanied by significant reforms in degree structures and quality assurance systems. However, the global financial and economic crisis affected higher education in different ways, with some EU Member States investing more and others making radical cutbacks in their tertiary education spending.

While the Bologna process put in motion a series of reforms to make European higher education more compatible, comparable, competitive and attractive for students, it is only one strand of a broader effort concerning higher education. To establish synergies between the Bologna process and the [Copenhagen process](#) (for enhanced European cooperation in [vocational education and training](#)), the [European Commission](#) and EU Member States have established a [European qualifications framework for lifelong learning \(EQF\)](#).

### Europe 2020 and ET 2020 benchmarks

Higher education institutions are crucial partners in delivering the EU's strategy to drive forward and maintain growth: the [Europe 2020 strategy](#) for smart, sustainable and inclusive growth has set a target that 40 % of people aged 30-34 years in the EU should have a higher education qualification by 2020. Improving the performance of education and training systems at all levels and increasing participation in tertiary education is also one of the [integrated economic and employment guidelines](#) that were revised as part of the Europe 2020 strategy.

The [updated strategic framework for European cooperation in education and training](#) (known as ET 2020), was adopted by the [Council](#) in May 2009. It sets out four strategic objectives for education and training in the EU:

- making lifelong learning and mobility a reality;
- improving the quality and efficiency of education and training;
- promoting equality, social cohesion and active citizenship; and
- enhancing creativity and innovation (including entrepreneurship) at all levels of education and training.

The strategy sets a number of benchmarks to be achieved by 2020, including the above-mentioned target that the share of 30-34 year-olds with tertiary educational attainment should be at least 40 %. Two supplementary benchmarks on learning mobility were adopted by the Council in November 2011. The first of these sets a target for 2020 whereby an average of at least 20 % of higher education graduates in the EU should have had a period of higher education-related study or training (including work placements) abroad, representing a minimum of 15 [European credit transfer and accumulation system \(ECTS\)](#) credits or lasting a minimum of three months. A second benchmark on employability was added in May 2012: namely, that by 2020, the EU share of employed graduates aged 20-34 having left education and training no more than three years before the reference year should be at least 82 %.

### Erasmus+

The [Erasmus programme](#) was one of the most well-known European programmes and ran for just over a quarter of a century; in 2014 it was superseded by the [EU's programme for education, training, youth and sport](#), referred to as [Erasmus+](#). In the field of higher education, Erasmus+ gives students and academic staff the opportunity to develop their skills and boost their employment prospects. Students can study abroad for up to 12 months (during each cycle of tertiary education). More than two million higher education students are expected to take part in Erasmus+ during the 2014-2020 period, including an estimated 25 thousand students in [joint masters' programmes](#). The programme currently covers all 27 EU Member States, as well as the United Kingdom (at least until 31 December 2020), Iceland, Liechtenstein, Norway, North Macedonia, Serbia and Turkey.

In May 2018, the European Commission adopted proposals for [the Erasmus programme for 2021-2027](#), involving a doubling of the budget to EUR 30 billion which it is expected should enable 12 million people to participate in the programme. In June 2019, the European Parliament approved the budget for the programme for 2021-2027.

## Other articles

- [Being young in Europe today — education](#)
- [Education and training in the EU — facts and figures](#)
- [The EU in the world — education and training](#)

## Publications

- [The EU has reached its tertiary education target](#) , News release April 2020

## Main tables

- [Education and training \(t\\_educ\)](#)

## Database

- [Education and training \(educ\)](#) , see:

Participation in education and training (educ\_part)

Education personnel (educ\_uae\_per)

Education finance (educ\_uae\_fin)

- [Education and training](#)
- [Youth](#)

## Methodology

### Metadata

- [Education administrative data from 2013 onwards \(ISCED 2011\)](#) (ESMS metadata file — educ\_uae\_enr\_esms)

### Manuals and other methodological information

- [Classification of learning activities — Manual — 2016 edition](#)
- [Further methodological information on educational attainment](#)
- [International Standard Classification of Education \(ISCED\)](#)
- [ISCED 2011 operational manual — Guidelines for classifying national education programmes and related qualifications](#)
- [UOE data collection on formal education — Manual on concepts, definitions and classifications — 2019 edition](#)

## Legislation

- [Regulation \(EC\) No 452/2008](#) of 23 April 2008 concerning the production and development of statistics on education and lifelong learning
  - From school year 2012/2013 onwards: [Commission Regulation \(EU\) No 912/2013](#) of 23 September 2013 as regards statistics on education and training systems
  - School years 2010/2011 and 2011/2012: [Commission Regulation \(EU\) No 88/2011](#) of 2 February 2011 as regards statistics on education and training systems
  - [Summaries of EU Legislation: Statistics on education and lifelong learning](#)

## External links

- [Council of Europe — The European Higher Education area at 20: new publication](#)
- [European Commission — Education and training monitor](#)
- [European Commission — Education and training — Bologna process](#)
- [European Commission — Education and training — Higher education policy](#)
- [European Commission — Education and training — Strategic framework for education and training](#)
- [European Commission — Programmes — Erasmus+](#)
- [Eurydice — Better knowledge for better education policies](#)
- [Eurydice — The European higher education area in 2018: Bologna process Implementation report](#)
- [OECD — Skills beyond school](#)
- [OECD — Thematic review of tertiary education](#)
- [UNESCO — Higher education](#)