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" In the EU there were 18.8 million tertiary education students in 2022, of which 59% were studying for bachelor's degrees. "

" In 2022, 22% of tertiary education students in the EU were studying business, administration or law. "

" Within the EU, 57% of all tertiary education graduates in 2022 were women. In all EU countries, more women graduated from tertiary education than men. "

" In 2022, the most frequently awarded degrees in the EU were in the field of business, administration and law. "

This article presents statistics on [tertiary education](#) (levels 5 to 8 of the [International Standard Classification of Education – ISCED](#)) 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 tertiary educational institutions – typically follows secondary schooling. It is considered as playing 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 there will be increased demand for highly skilled people in coming years. 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

Number of tertiary education students by sex and level of education, 2022

(1 000)

EU (*)	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
EU (*)	18 768.7	8 521.3	10 247.4	1 431.3	727.5	703.8	11 158.6	5 144.2	6 014.4	5 508.9	2 307.9	3 201.0	669.9	341.6	328.2
Belgium (†)	549.4	239.8	309.6	26.2	11.9	14.3	382.3	165.0	217.3	121.6	52.8	68.8	19.3	10.1	9.2
Bulgaria	227.0	101.3	125.7	–	–	–	146.8	69.2	77.6	73.6	28.9	44.8	6.5	3.1	3.4
Czechia	338.0	145.0	192.9	1.1	0.4	0.7	204.9	89.1	115.9	110.4	43.5	66.8	21.6	12.1	9.5
Denmark	309.6	132.4	177.2	36.5	19.2	17.3	194.7	78.6	116.0	68.9	30.0	38.9	9.5	4.6	4.9
Germany	3 362.7	1 682.3	1 680.5	11.4	6.2	5.2	2 017.9	1 059.6	958.3	1 133.1	511.3	621.8	200.3	105.2	95.1
Estonia	44.3	18.1	26.2	–	–	–	27.1	11.7	15.4	14.9	5.4	9.6	2.3	1.1	1.3
Ireland	247.2	112.7	134.5	19.8	9.2	10.6	176.4	81.7	94.6	41.1	17.3	23.8	10.0	4.5	5.5
Greece	872.8	439.6	433.2	–	–	–	736.7	383.7	353.0	103.3	39.0	64.3	32.9	17.0	15.9
Spain	2 309.3	1 052.2	1 257.1	549.9	279.6	270.3	1 261.1	560.1	701.1	400.5	163.8	236.7	97.7	48.7	49.0
France	2 883.4	1 285.8	1 597.7	533.2	272.4	260.9	1 269.8	508.6	761.2	1 013.9	469.7	544.2	66.5	35.1	31.5
Croatia	161.1	68.2	92.9	0.0	0.0	0.0	91.3	42.2	49.1	65.3	24.0	41.3	4.5	2.0	2.5
Italy	2 145.7	940.5	1 205.2	28.4	20.9	7.6	1 272.3	578.0	694.3	807.1	321.9	485.2	37.9	19.8	18.1
Cyprus	53.0	21.7	31.3	3.3	2.1	1.2	22.2	11.2	11.0	25.7	7.6	18.1	1.7	0.7	1.0
Latvia	77.4	32.7	44.7	14.3	4.9	9.4	43.6	20.3	23.2	17.4	6.5	11.0	2.0	1.0	1.1
Lithuania	104.1	43.3	60.8	–	–	–	74.2	32.6	41.6	27.2	9.6	17.7	2.7	1.1	1.5
Luxembourg (†)	7.7	3.6	4.1	0.9	0.4	0.5	3.1	1.3	1.7	2.8	1.3	1.5	1.0	0.6	0.4
Hungary	293.6	133.4	160.1	12.0	5.2	6.8	185.8	86.0	99.8	85.3	36.9	48.4	10.5	5.4	5.2
Malta	19.0	8.0	11.1	2.1	0.7	1.4	10.1	4.4	5.6	6.2	2.5	3.7	0.7	0.4	0.3
Netherlands	–	–	–	40.7	18.4	22.4	720.1	336.8	383.3	204.4	89.0	115.4	–	–	–
Austria	439.5	199.6	239.8	74.5	34.0	40.5	199.4	89.7	109.7	145.5	65.0	80.5	20.0	10.9	9.1
Poland	1 365.7	550.6	815.1	1.1	0.1	1.0	895.2	396.2	499.0	442.6	141.8	300.8	26.9	12.6	14.3
Portugal	417.2	193.6	223.6	19.5	12.5	7.0	257.7	120.6	137.1	115.6	48.9	66.7	24.4	11.6	12.8
Romania	554.0	246.3	307.7	–	–	–	356.3	167.8	188.5	175.3	67.6	107.6	22.4	10.9	11.5
Slovenia	81.7	34.6	47.1	10.6	6.5	4.1	45.3	18.5	26.8	22.3	7.9	14.4	3.5	1.6	1.9
Slovakia	140.2	57.8	82.5	2.4	0.8	1.6	83.6	35.3	48.2	47.8	18.3	29.5	6.5	3.4	3.1
Finland	315.6	143.2	172.4	–	–	–	216.3	102.0	114.3	80.1	32.3	47.9	19.2	9.0	10.2
Sweden	484.2	190.9	293.3	43.3	22.1	21.2	264.7	94.1	170.6	156.9	65.2	91.6	19.3	9.5	9.8
Iceland	21.9	7.4	14.4	0.7	0.3	0.4	14.7	5.2	9.5	5.8	1.6	4.1	0.7	0.3	0.4
Liechtenstein	1.0	0.6	0.4	–	–	–	0.4	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.1
Norway	320.4	132.7	187.7	12.1	9.6	2.4	199.2	79.1	120.1	99.4	39.5	59.9	9.7	4.5	5.3
Switzerland	339.0	165.0	174.0	3.4	1.3	2.1	223.7	109.7	114.0	84.6	40.0	44.6	27.3	14.0	13.2
Bosnia and Herzegovina	79.1	31.5	47.7	0.1	0.0	0.0	56.3	23.9	32.4	21.5	6.9	14.6	1.3	0.6	0.7
Montenegro	22.7	10.0	12.7	–	–	–	19.5	8.9	10.6	3.1	1.0	2.0	0.1	0.0	0.1
North Macedonia	56.1	23.5	32.6	–	–	–	51.6	21.7	29.9	3.8	1.5	2.3	0.7	0.3	0.4
Albania	123.9	50.4	73.5	6.8	4.2	2.6	72.9	31.4	41.5	43.7	14.5	29.2	0.6	0.3	0.3
Serbia	244.0	102.6	141.4	–	–	–	179.6	78.5	101.1	52.7	19.2	33.4	11.7	4.9	6.8
Türkiye	8 297.0	4 172.1	4 124.8	3 250.1	1 567.4	1 682.7	4 394.3	2 277.0	2 117.4	543.0	271.6	271.4	109.5	56.2	53.4

(–) not applicable

(†) Excluding doctoral or equivalent students in the Netherlands.

(‡) Short-cycle tertiary education: excluding the French Community for vocational education. Bachelor's or equivalent: including marginal enrolments of vocational short-cycle tertiary education for the French Community.

(§) Enrolments in independent private institutions are negligible and reported with value 0.

Source: Eurostat (online data code: educ_uae_enrt01)

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Table 1: Number of tertiary education students by sex and level of education, 2022 (1 000) Source: Eurostat (educ_uae_enrt01)

Table 1 presents data on the number of students in each of 4 [levels of tertiary education](#). Bachelor's, master's and doctoral levels of tertiary education are found in all EU countries, while short-cycle tertiary education, which is typically vocational (occupationally specific) and designed to prepare students for the labour market, isn't part of the education system in Bulgaria, Estonia, Greece, Lithuania, Romania or Finland. Short-cycle tertiary education is also quite uncommon – accounting for less than 1.0% of the total number of tertiary students – in several other EU countries, namely Czechia, Germany, Croatia and Poland.

In the EU there were 18.8 million tertiary education students in 2022 (excluding doctoral or equivalent students in the Netherlands; see Table 1). Germany – the most populous EU country – had 3.4 million tertiary education students, which was the highest number in the EU and equivalent to 17.9% of the EU total. France (15.4% of the total), Spain (12.3%) and Italy (11.4%) had the next largest shares of the EU's tertiary student population.

Among the 18.8 million tertiary education students in the EU

- 7.6% were following short-cycle tertiary courses
- 59.5% were studying for bachelor's degrees

- 29.4% were studying for master's degrees
- 3.6% were studying for doctoral degrees.

Students of bachelor's and master's degrees accounted for 88.8% of the total number of tertiary students in the EU in 2022. Notably higher shares for these 2 levels of education were reported for Poland (98.0%), Lithuania (97.4%), Croatia (97.2%), Bulgaria (97.1%) and Italy (96.9%). Notably lower shares were recorded for Luxembourg (75.4%) and Spain (72.0%).

Short-cycle tertiary courses were most common in Spain where they accounted for 23.8% of all tertiary students; they were also relatively common in Latvia, France and Austria.

Luxembourg, Cyprus, France and Austria were the only EU countries where fewer than 50% of all tertiary students were studying for bachelor's degrees. Among EU countries, the highest share of tertiary students who were studying for bachelor's degrees was 84.4% in Greece.

Greece had the lowest share of tertiary students studying for master's degrees in 2022, around a tenth (11.8%) of all tertiary students. This share was also below 20% in Ireland and Spain. By contrast, the highest shares were recorded in Croatia (40.6%) and Cyprus (48.5%).

Germany had a relatively high share of tertiary students studying for doctoral degrees in 2022 (6.0% compared with the EU average of 3.6%). In line with the fact that Germany had the highest total number of tertiary students among the EU countries, it also had, by far, the highest number of students studying for doctoral degrees (200 300) – see Table 1. This was more than twice the number of students studying for a doctoral degree in any of the other EU countries; the next highest counts were recorded in Spain (97 700) and France (66 500). Although France had the 2nd highest total number of tertiary students among the EU countries, at 2.3% the share of students studying for doctoral degrees in France was the third lowest among the EU countries. By far, the highest share of tertiary students studying for doctoral degrees in 2022 among the EU countries was recorded in Luxembourg (13.3%), with the next highest share in Czechia (6.4%). The lowest shares of doctoral students in the total number of tertiary education students were observed in Poland (2.0%) and Italy (1.8%).

Participation in tertiary education by sex

In 2022, women accounted for 54.6% of all tertiary students in the EU. The share of women among tertiary students was

- 49.2% for those following short-cycle tertiary courses
- 53.9% for those studying for bachelor's degrees
- 58.1% for those studying for master's degrees
- 49.0% for those studying for doctoral degrees.

As such, the majority of short-cycle tertiary and doctoral students were male, while the majority of bachelor's and master's students were female.

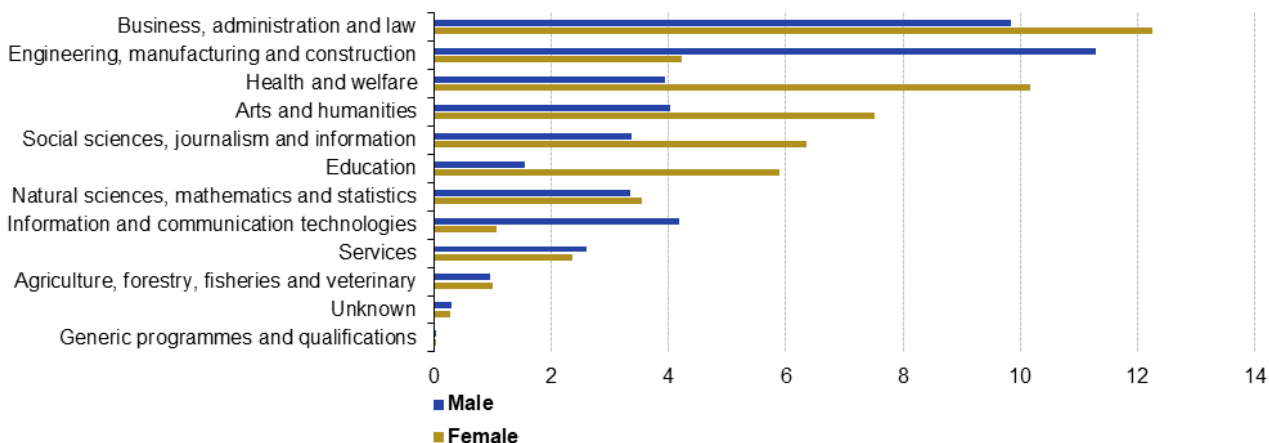
In 2022, 60.6% of all tertiary students in Sweden were female, while the share was close to this level in Poland (59.7%). Women were also in a majority among tertiary students in all of the other EU countries except for Germany (where the numbers of male and female students were almost equal) and Greece (49.6% were female).

- For short-cycle courses, 11 out of 21 EU countries in which such courses exist had more female than male students in 2022.
- For bachelor's degrees, Germany, Greece and Cyprus were the only EU countries where there were more men than women studying at this educational level in 2022. The highest share of female students among those studying for bachelor's degrees was recorded in Sweden (64.5%).
- Among students studying for master's degrees, women were in the majority in all of the EU countries in 2022. The highest female share was recorded in Cyprus, where women accounted for more than two thirds (70.5%) of the total number of students, as was also the case in Poland (68.0%).

- Women were in a majority among doctoral level students in 15 of the EU countries, despite the fact that men made up a majority (51.0%) of doctoral students in the EU as a whole. The highest share for women was in Lithuania (56.8%) while the highest share for men was in Luxembourg (56.8%).

Participation in tertiary education by field of education

Distribution of tertiary education students by broad field and sex, EU, 2022 (%)



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

Source: Eurostat (online data code: educ_uoe_enrt03)

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Figure 1: Distribution of tertiary education students by broad field and sex, 2022 (%) Source: Eurostat (educ_uoe_enrt03)

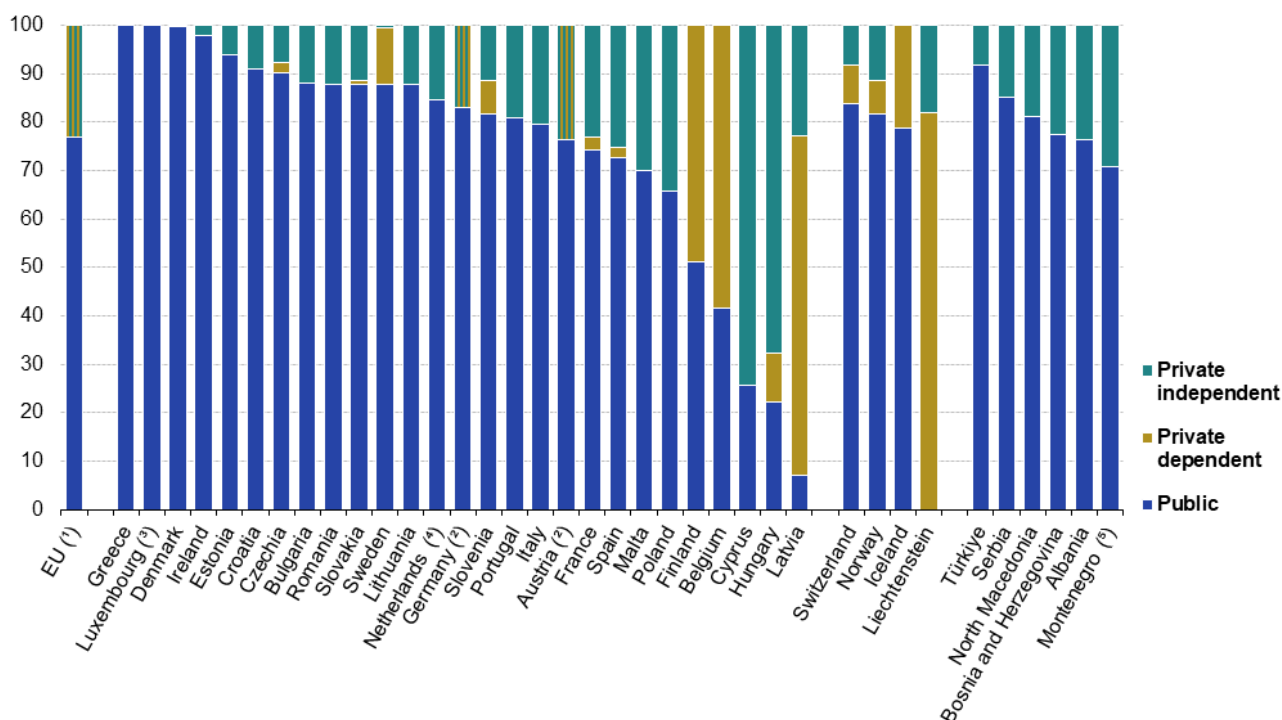
Across the EU, more than a fifth (22.1%) of all students in tertiary education in 2022 were studying business, administration or law. Women accounted for a majority of the total number of students within this field of education – see Figure 1. The 2nd most common field of education was engineering, manufacturing and construction which accounted for 15.5% of all tertiary education students. In this field, almost three quarters (72.7%) of all students were male; some 24.9% of all male tertiary education students were studying engineering, manufacturing or construction. The 3rd largest field of study was health and welfare, with a 14.1% share of all tertiary education students. Women accounted for a large majority (72.2%) of the total number of tertiary students in this field. The only other field of study to account for a double-digit share (11.5%) of tertiary education students was arts and humanities, where women also accounted for a relatively large majority (65.1%) of the total number of tertiary students in this field.

Among the remaining fields of study shown in Figure 1, there was a particularly high share of female students among those studying education (79.2%), while there was a relatively high share of female students among those studying social sciences, journalism and information (65.4%), or arts and humanities (65.1%). By contrast, there was a relatively high share (79.8%) of men studying information and communication technologies.

Participation in tertiary education by type of institution

Distribution of students in tertiary education by type of institution, 2022

(%)



(1) Data for private dependent and private independent are combined. Excluding the Netherlands.

(2) Data for private dependent and private independent are combined.

(3) Enrolments in independent private institutions are negligible and reported with value 0.

(4) 2021. Estimate.

(5) 2021.

Source: Eurostat (online data code: educ_uae_enrt01)

eurostat

Figure 2: Distribution of students in tertiary education by type of institution, 2022 (%) Source: Eurostat (educ_uae_enrt01)

In the EU, the vast majority (76.9%) of tertiary education students in 2022 were taught in public institutions¹ – see Figure 2.

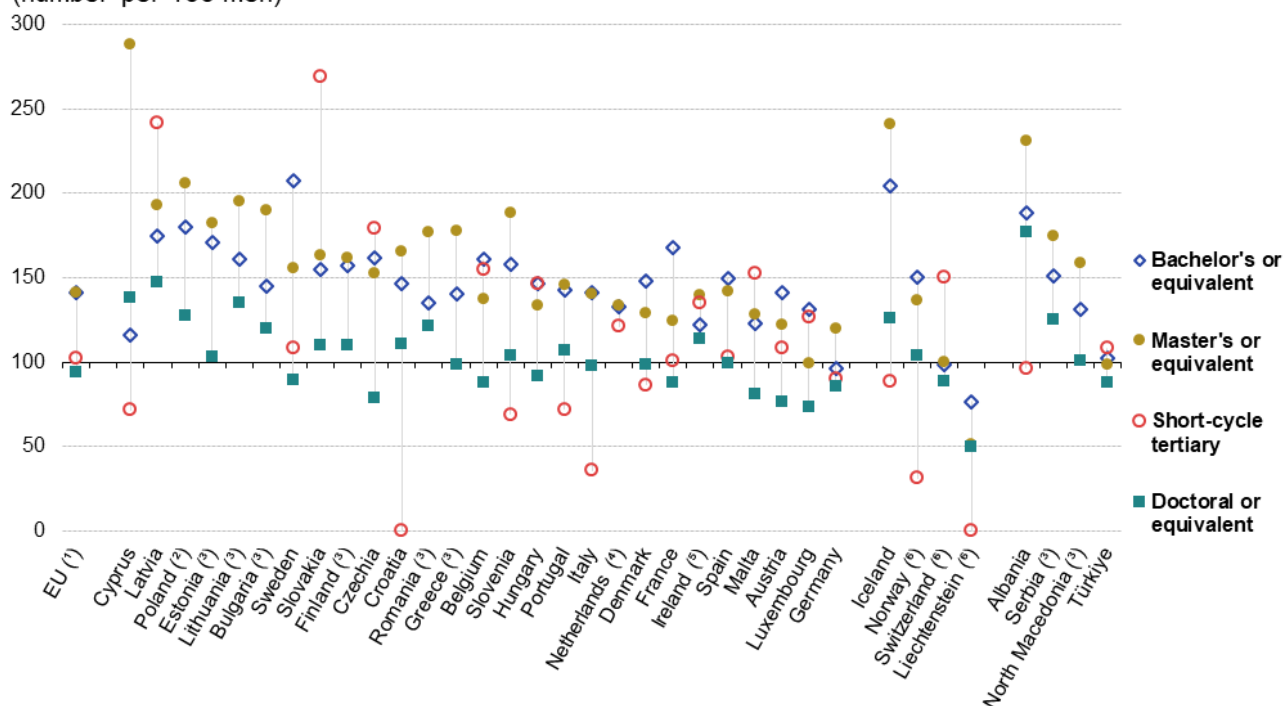
- In 2022, all tertiary education students were studying in public institutions in Greece and Luxembourg; in a further 21 EU countries, a majority of tertiary education students were studying in public institutions.
- In 4 EU countries, a minority of tertiary education students were studying in public institutions in 2022
 - in Belgium, the share was 41.7%, with students in private institutions almost exclusively in government-dependent private institutions
 - in Cyprus, the share was 25.7%, with students in private institutions exclusively in independent private institutions
 - in Hungary, the share was 22.0%, with students in private institutions predominantly in independent private institutions
 - in Latvia, the share was 7.1%, with students in private institutions mainly in government-dependent private institutions, although independent private institutions did account for nearly a quarter of all tertiary students.

¹According to the UOE classification, the distinction between public and private is made according to whether a public agency or a private entity has the overall control of the institution and not according to which sector provides the majority of the funding. If a private institution receives the majority of funding from a public agency it is considered to be dependent; if not, it is independent.

Graduates

Ratio of women to men among tertiary education graduates, 2022

(number per 100 men)



Reading note: for example, in Cyprus there were more male than female graduates from short-cycle tertiary education, so the number of female graduates per 100 male graduates was below 100; for the three other levels of tertiary education, there were more female than male graduates in Cyprus, so the number of female graduates per 100 male graduates was above 100; there were nearly 3 times as many female graduates as male graduates from master's or equivalent studies in Cyprus, so the ratio for this level of education was close to 300 female graduates for 100 male graduates.

(†) Doctoral or equivalent: excluding the Netherlands.

(‡) Short-cycle not shown for reasons of scale. Ratio was 1 320 women to 100 men.

(‡) Short-cycle tertiary: not applicable.

(‡) Doctoral or equivalent: not available.

(‡) Undercoverage for private independent institutions.

(‡) 2021.

Source: Eurostat (online data code: educ_uae_grad09)

eurostat

Figure 3: Ratio of women to men among tertiary education graduates, 2022 (number per 100 men) Source: Eurostat (educ_uae_grad09)

In 2022, approximately 4.3 million students graduated from tertiary education in the EU. France (885 900) had the largest number of tertiary graduates, some way ahead of Germany (636 700) which had the next largest number. The relatively high number of graduates in France may, at least to some extent, reflect a shorter average course length.

As noted above, the majority of short-cycle tertiary students and doctoral students in 2022 in the EU were men, while the majority of bachelor's and master's students were women. This gender difference among tertiary students is reflected, to some extent, in the data for tertiary graduates.

- Despite men being in the majority among the short-cycle tertiary student population, there were slightly more women than men graduating, with a ratio across the EU of 102 women for every 100 men.
- The ratio of women to men among graduates was highest for graduates of bachelor's and master's levels: there were 142 women who were graduates from bachelor's or equivalent courses for every 100 men; for master's or equivalent courses the ratio was very similar, at 141 women for every 100 men.
- The majority of doctoral or equivalent students were men and this was reinforced in terms of the number of graduates. There were 94 women among doctoral or equivalent graduates for every 100 men.

Among the EU countries, the highest ratios of women to men among tertiary graduates in 2022 were observed in Cyprus (198 women for every 100 men), Latvia (192 women for every 100 men) and Poland (188 women for every 100 men). In all EU countries, there were more women who graduated from tertiary education than men: the lowest ratio was in Germany (104 women for every 100 men).

Distribution of tertiary education graduates by broad field of education, 2022 (%)

	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
EU	0.0	9.0	9.4	9.4	24.7	7.3	4.5	14.7	1.8	14.1	4.8	0.3
Belgium	0.0	8.8	8.7	10.7	22.7	4.1	3.0	11.7	2.0	26.8	1.5	0.1
Bulgaria	0.0	15.9	7.3	10.2	25.3	2.9	4.8	11.6	2.0	11.7	8.3	0.0
Czechia	0.2	13.7	8.6	10.3	19.2	6.4	5.5	13.0	3.1	13.5	6.5	0.0
Denmark	0.0	5.5	9.6	9.9	25.8	5.7	5.5	12.9	1.2	20.7	3.1	0.0
Germany	0.0	10.0	9.1	7.0	25.1	7.9	5.5	22.5	1.7	7.9	3.3	0.0
Estonia	0.0	8.8	13.3	7.5	22.4	6.1	9.6	11.9	1.5	13.6	5.5	0.0
Ireland (*)	0.7	8.3	9.8	6.4	25.2	7.8	8.2	9.8	1.3	17.4	3.5	1.5
Greece	0.0	7.5	10.2	16.1	21.2	8.2	3.6	14.4	3.3	11.9	3.5	0.0
Spain	0.0	15.9	8.7	7.5	19.3	4.6	5.2	11.5	1.0	18.7	7.6	0.0
France	0.0	4.1	8.7	7.1	31.2	12.7	4.1	13.8	1.5	13.2	3.7	0.0
Croatia	0.0	7.5	8.0	8.0	21.2	5.4	5.2	18.1	3.0	14.2	9.3	0.0
Italy	0.0	8.2	16.0	15.0	18.6	7.7	1.5	14.2	2.1	12.4	3.7	0.5
Cyprus	0.0	30.9	5.8	7.7	33.9	2.1	2.3	5.6	0.5	7.0	4.1	0.0
Lithuania	0.0	9.6	7.3	8.9	26.3	2.7	5.4	11.5	1.3	18.8	8.0	0.0
Latvia	0.0	6.1	9.5	9.3	26.0	4.5	5.0	14.3	2.3	21.1	1.8	0.0
Luxembourg	0.0	11.9	8.2	10.0	39.9	6.6	8.6	7.6	0.0	6.3	0.8	0.0
Hungary	0.0	13.1	8.3	11.5	25.6	3.7	6.8	13.7	3.4	8.8	4.9	0.3
Malta	0.0	10.0	6.7	9.4	34.6	3.4	5.8	6.3	0.3	19.6	4.1	0.0
Netherlands	0.0	7.9	7.6	15.4	27.5	6.4	4.4	9.3	1.2	15.4	4.8	0.0
Austria	0.0	11.6	7.1	7.4	23.7	6.0	5.3	19.8	1.4	10.5	7.2	0.1
Poland	0.0	9.2	7.5	9.9	27.4	3.3	4.3	11.9	2.2	11.8	7.8	1.7
Portugal	0.0	4.2	9.7	11.5	21.4	6.1	2.5	19.2	2.1	16.9	6.3	0.0
Romania	0.0	5.8	8.9	9.6	26.8	4.8	6.8	16.8	4.0	11.7	4.8	0.0
Slovenia	0.0	10.4	7.3	9.9	18.3	6.8	4.8	18.0	2.7	13.5	8.4	0.0
Slovakia	0.0	14.1	7.6	10.3	19.9	4.8	4.8	11.8	2.2	17.7	6.8	0.0
Finland	0.0	6.8	9.6	6.6	19.9	4.6	8.1	16.7	2.0	21.2	4.5	0.0
Sweden	0.0	13.1	6.3	11.9	15.7	4.0	6.8	18.3	0.8	20.6	2.6	0.1
Iceland	0.0	19.1	8.0	16.6	19.8	4.8	4.0	8.1	0.8	15.8	3.1	0.0
Liechtenstein (*)	0.0	0.0	0.0	0.0	68.2	0.0	0.0	29.3	0.0	2.5	0.0	0.0
Norway (*)	0.2	13.7	8.8	11.7	17.2	4.8	5.9	12.3	0.8	19.4	5.3	0.0
Switzerland (*)	0.0	9.5	7.1	6.4	28.0	6.9	3.0	15.4	1.4	16.6	5.0	0.7
Bosnia and Herzegovina	0.0	10.8	7.8	18.0	12.7	4.2	5.1	14.7	5.1	15.1	6.2	0.4
Montenegro (*)	0.0	3.9	9.8	18.3	23.5	2.3	5.3	13.4	2.1	5.2	16.2	0.0
North Macedonia	0.0	3.6	9.7	11.7	28.6	2.8	7.9	12.1	1.4	15.6	6.7	0.0
Albania	0.1	10.3	8.8	9.6	27.2	3.3	6.1	11.4	3.5	15.9	3.7	0.0
Serbia	0.0	7.4	10.3	8.5	19.8	5.1	7.2	17.5	2.2	12.8	9.1	0.0
Turkey	0.0	6.7	11.0	9.2	21.4	2.6	2.6	13.2	2.5	22.5	8.2	0.0

(*) Undercoverage for private independent institutions.

(*) 2021.

(*) 2020.

Source: Eurostat (online data code: educ_uoe_grad02)

eurostat

Table 2: Distribution of tertiary education graduates by broad field of education, 2022 (%) Source: Eurostat (educ_uoe_grad02)

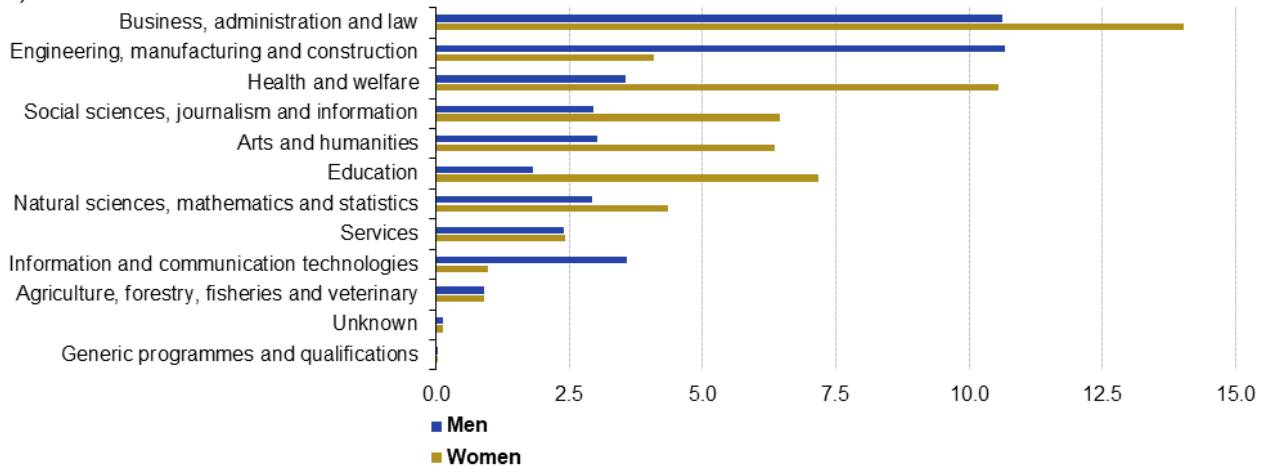
In 2022, an analysis of the number of graduates in the EU by field of education shows that almost a quarter (24.7%) of all tertiary students had graduated in business, administration or law. The next 2 largest fields were engineering, manufacturing and construction (14.7%) and health and welfare (14.1%), followed by arts and humanities, and social sciences, journalism and information, both of which had shares of 9.4%.

For several fields of education, there was a remarkable variability in the distribution of tertiary graduates in 2022 across the EU countries.

- The proportion of graduates in business, administration and law ranged from 15.7% in Sweden to 39.9% in Luxembourg.
- For engineering, manufacturing and construction studies, the share of all graduates was below 10.0% in 5 EU countries, with Cyprus recording the lowest share (5.8%). By contrast, Portugal (19.2%), Austria (19.8%) and Germany (22.5%) reported the highest shares.
- A similar situation was observed for graduates in health and welfare. The share of all graduates was below 10.0% in 4 EU countries, with Luxembourg recording the lowest share (6.3%). By contrast, Sweden (20.6%), Denmark (20.7%), Lithuania (21.1%), Finland (21.2%) and Belgium (26.8%) reported shares of more than a fifth.
- The share of tertiary graduates from the education field was below 5.0% in France (4.1%) and Portugal (4.2%), while the highest share was recorded for Cyprus (30.9%).
- Larger gaps (in relative terms) between the highest and lowest shares were observed for some of the smaller fields, most notably for agriculture, forestry, fisheries and veterinary where the 4.0% share in Romania was 87 times as high as the 0.05% share in Luxembourg.

Distribution of tertiary education graduates by broad field and sex, EU, 2022

(%)



Note: ranked on the total (men and women) share of graduates in each broad field. Excluding Czechia and undercoverage for private independent institutions in Ireland.

Source: Eurostat (online data code: educ_uoe_grad02)

eurostat

Figure 4: Distribution of tertiary education graduates by broad field and sex, EU, 2022 (%) Source: Eurostat (educ_uoe_grad02)

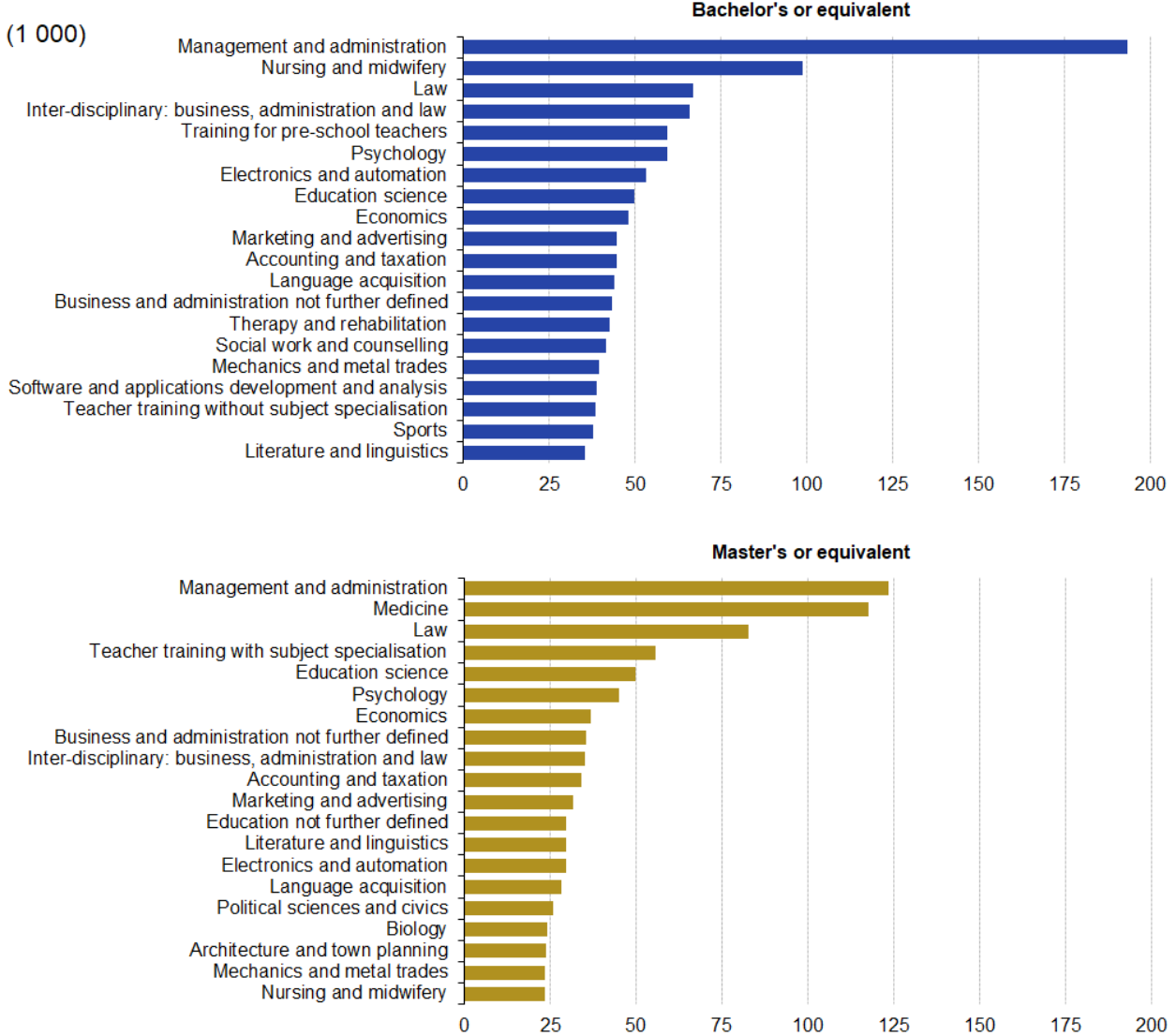
Figure 4 extends the analysis of Table 2 by presenting not only an analysis by broad field of education, but also by the sex of the graduates. The distribution of tertiary education graduates by sex and field of study as shown in Figure 4 reflects the distribution of participation numbers in tertiary education as shown in Figure 1.

Within the EU, 57.4% of all tertiary education graduates in 2022 were women.

- Some 14.0% of all tertiary graduates were women graduating from business, administration and law, while 10.6% were men from the same field.
- Around a tenth of all tertiary graduates were men graduating from engineering, manufacturing and construction (10.7%), while a similar share were women graduating from health and welfare (10.6%).
- There were more women than men among graduates from all fields except for i) engineering, manufacturing and construction, ii) information and communication technologies and iii) agriculture, forestry, fisheries and veterinary.
- Women outnumbered men among graduates from all fields where they also outnumbered men among students, with the exception of agriculture, forestry, fisheries and veterinary.
- With the exception of services, men outnumbered women among graduates from all fields where they also outnumbered women among students.

The analysis by sex of students and graduates from different fields varied most for natural sciences, mathematics and statistics – compare Figure 1 and Figure 4. In this field, there were 1.1 times as many female as male students, but 1.5 times as many female as male graduates. In nearly all fields, the ratio of women to men was higher among graduates than among students: agriculture, forestry, fisheries and veterinary was the only exception.

Number of tertiary education graduates in each detailed field of education, EU, 2022



Note: the figure shows the top 20 detailed fields of education with the highest numbers of graduates for each type of tertiary degree. Excluding Slovenia for most fields.

Source: Eurostat (online data code: educ_uoe_grad02)

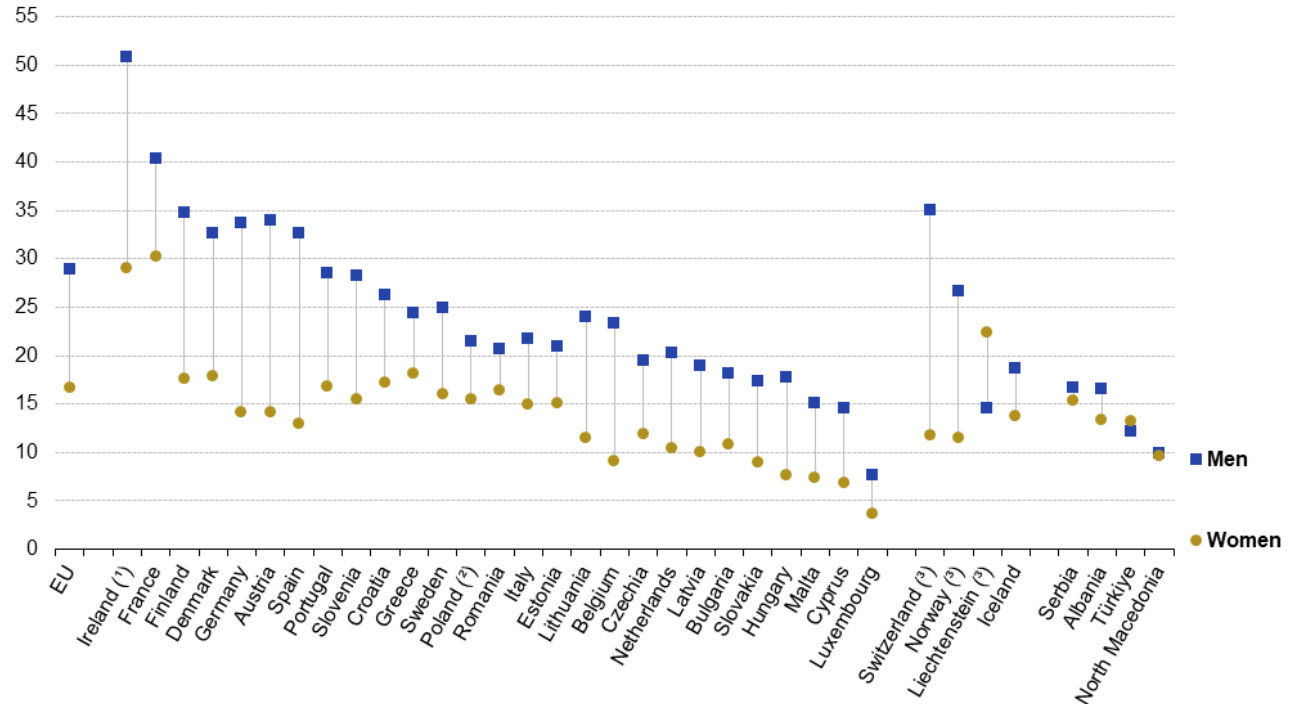
eurostat

Figure 5: Number of tertiary education graduates in each detailed field of education, EU, 2022 (1 000) Source: Eurostat (educ_uoe_grad02)

A more detailed analysis of field of study is presented in Figure 5, 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 EU countries principally or exclusively as master's courses. In these cases, the number of graduates at the bachelor's level may be small or even zero.

In 2022, the most frequently awarded degree – based on detailed fields of education – was for management and administration; across the EU, some 193 400 people in this field graduated with a bachelor's degree and 123 500 with a master's degree. Nursing and midwifery was the 2nd most common field for those graduating with a bachelor's degree (98 800). By contrast, medicine was the 2nd most frequently awarded degree among those graduating with a master's degree (117 500), followed by law (82 900).

Tertiary education graduates in science, mathematics, computing, engineering, manufacturing and construction, 2022 (number per 1 000 inhabitants aged 20–29 years)



Note: ranked on the ratio for both sexes combined.

(¹) Undercoverage for private independent institutions.

(²) Estimates.

(³) 2021.

Source: Eurostat (online data code: educ_uae_grad04)

eurostat

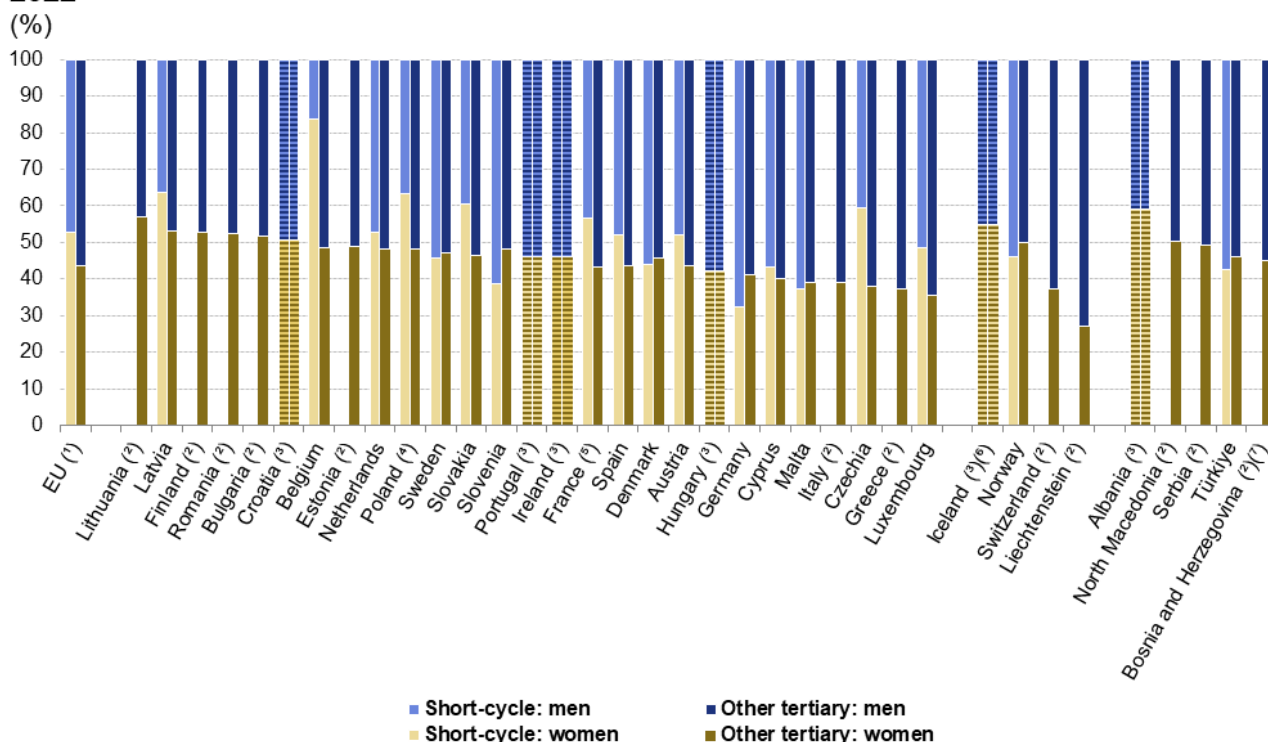
Figure 6: Tertiary education graduates in science, mathematics, computing, engineering, manufacturing and construction, 2022 (number per 1 000 inhabitants aged 20–29 years) Source: Eurostat (educ_uae_grad04)

Relative to the size of the population aged 20 to 29 years, the number of tertiary graduates in science, mathematics, computing, engineering, manufacturing and construction (referred to hereafter as STEM) in the EU increased in recent years. In 2014, the ratio was 18.5 per 1 000 people aged 20 to 29 years while in 2022 it was 23.0 per 1 000.

Figure 6 shows this ratio for male and female graduates in 2022. There were almost twice as many male as female STEM graduates in the EU: 28.9 men per 1 000 male inhabitants aged 20 to 29 years and 16.7 women per 1 000 female inhabitants aged 20 to 29 years. In relative terms, the gender gap for this field of education was most marked in Belgium and Spain, where the ratios for male graduates were 2.6 and 2.5 times, respectively, as high as the ratios for female graduates. The narrowest gender gaps for this indicator were observed in Romania and Greece, where the ratios for male graduates were 1.3 times as high as the ratios for female graduates.

Teaching staff

Teaching staff in tertiary education by sex and level of education, 2022



Note: ranked on the share of women among all tertiary education teaching staff.

(¹) Incomplete coverage.

(²) Short-cycle tertiary: not applicable.

(³) Data only available for all tertiary education levels combined.

(⁴) Short-cycle tertiary: estimates.

(⁵) Excluding private institutions.

(⁶) Definition differs.

(⁷) 2019.

Source: Eurostat (online data code: educ_uoe_perp01)

eurostat

Figure 7: Teaching staff in tertiary education by sex and level of education, 2022 (%) Source: Eurostat (educ_uoe_perp01)

There were 1.49 million people teaching in tertiary education across the EU in 2022. Close to a third (32.6%) of the tertiary education teaching staff in the EU were teaching in Germany, with more than a tenth in Spain (12.5%).

In contrast to the teaching staff in schools, where women were in the majority, in 2022 a higher proportion of tertiary education teaching staff in the EU were men (55.6%). Note that the countries in Figure 7 are ranked on the share of women among the teaching staff for the whole of tertiary education.

- The share of men among tertiary education teaching staff exceeded 60% in Luxembourg, Greece, Czechia, Italy and Malta.
- Women accounted for a majority of the tertiary education teaching staff in Belgium, Croatia, Bulgaria, Romania, Finland and Latvia, with their share peaking at 57.0% in Lithuania.

Figure 7 provides information on the relative shares of men and women within tertiary education teaching staff in 2022. An analysis by level of education provides data for short-cycle tertiary education separate from the rest of tertiary education.

- For the EU (excluding Ireland, Croatia, Hungary and Portugal), the share of women within the teaching staff was higher for short-cycle tertiary education (52.9%) than for the rest of tertiary education (43.8%).
- A particularly high share of women within the teaching staff for short-cycle tertiary education was observed in Belgium (83.7%).

- Among the 16 EU countries for which the analysis by level of education is available (see Figure 7), Denmark, Germany, Malta, Slovenia and Sweden were the only ones where the share of women within the teaching staff for short-cycle tertiary education was lower than the equivalent share for the rest of tertiary education.

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 3 international organisations

- the [United Nations Educational, Scientific, and Cultural Organization \(UNESCO\)](#) institute for statistics (UIS)
- the [Organisation for Economic Co-operation 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, foreign language learning and tertiary graduates with credit mobility.

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 9 different [levels of education](#) .

Eurostat data by fields of education are classified according to the [ISCED-F 2013](#) classification. 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 has a 3-level hierarchy based on broad fields (the highest level), narrow fields (the 2nd level) and detailed fields (the 3rd level) of education.

Tables in this article use the following notation:

Value <i>italics</i>	estimate or provisional data;
Value is –	not relevant or not applicable;
Value is :	not available.

Context

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. A prerequisite of tertiary education is the successful completion of ISCED level 3 programmes that give direct access to 1st stage 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 1 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. Nevertheless, the successful completion of a master's or equivalent level programme (ISCED level 7) is usually required for entry into a doctoral or equivalent level programme (ISCED level 8).

Bologna process and the renewed agenda for higher education

Since the introduction of the [Bologna process](#) (see the article on [Education and training statistics introduced](#)) a major expansion in higher education systems² has taken place, accompanied by significant reforms in degree structures and quality assurance systems.

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 1 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 countries have established a [European qualifications framework for lifelong learning \(EQF\)](#).

In May 2017, the European Commission adopted a Communication on [a renewed EU agenda for higher education](#) (COM(2017) 247 final), focusing on 4 priority activities

- tackling future skills mismatches and promoting excellence in skills development
- building inclusive and connected higher education systems
- ensuring higher education institutions contribute to innovation
- supporting effective and efficient higher education systems.

More information on the communication as well as on other [higher education initiatives](#) is available in the article on [Education and training statistics introduced](#).

European Education Area

A [Council Resolution on a strategic framework for European cooperation in education and training towards the European Education Area and beyond](#), was adopted by the [Council](#) in February 2021. For monitoring progress, 7 EU-wide targets have been introduced. They define benchmarks against which performance across education and training may be judged and refer to levels of average performance across the EU. These include

- the share of people aged 25 to 34 years with tertiary educational attainment should be at least 45%, by 2030
- at least 47% of people aged 25 to 64 years should have participated in [adult learning](#) during the previous 12 months, by 2025.

More information on the European Education Area is available in the article on [Education and training statistics introduced](#).

Erasmus+

In 2014, the [Erasmus programme](#) was superseded by the [EU's programme for education, training, young people and sport](#), referred to as '[Erasmus+](#)'. The programme currently covers the period 2021–27 and has an overall budget of € 26.2 billion. This is nearly double the funding compared with its predecessor programme (2014–20).

²In UOE statistics, the term 'tertiary education' is used, and this refers to ISCED levels 5 to 8. The term 'higher education' isn't used in UOE statistics and doesn't have a comparable international definition in terms of indicating a specific grouping of ISCED levels. A number of countries don't consider institutions delivering ISCED level 5 programmes to be part of what is nationally defined as 'higher education'.

Other articles

- [Education and training in the EU – facts and figures](#)

Main tables

- [Education and training \(t_educ\)](#)

Database

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

Participation in education and training (educ_part)

Education personnel (educ_uoe_per)

Education and training outcomes (educ_outc)

- [Education and training](#)

Methodology

Metadata

- [Education and training](#) (ESMS metadata file – educ_uoe_enr_esms)

Manuals and other methodological information

- [Classification of learning activities – Manual – 2016 edition](#)
- [International Standard Classification of Education \(ISCED\) 2011](#)
- [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 – 2023 edition](#)
- [UNESCO OECD Eurostat \(UOE\) joint data collection – methodology](#)

Legislation

- [Regulation \(EC\) No 452/2008](#) of 23 April 2008 concerning the production and development of statistics on education and lifelong learning
 - [Commission Regulation \(EU\) No 912/2013](#) of 23 September 2013 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 – Erasmus+ – EU programme for education, training, young people and sport](#)
- [European Commission – European Education Area](#) , see
 - [Strategic framework for European cooperation in education and training towards the European Education Area and beyond \(2021–30\)](#)
 - [Higher education](#)
 - [The Bologna Process and the European Higher Education Area](#)

- [European Education and Culture Executive Agency \(EACEA\)](#)
 - [Eurydice](#) , see
 - * [Towards Equity and Inclusion in Higher Education in Europe](#)
 - * [National Student Fee and Support Systems in European Higher Education](#)
- [OECD – Directorate for Education and Skills](#) , see
 - [Higher education policy](#)
 - [Education and skills policy programme](#)
- [UNESCO – Education transforms lives](#)
 - [Higher education](#)