

Secondary education statistics

Statistics Explained

Data extracted in September 2020.

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This article presents statistics on [secondary and post-secondary non-tertiary education](#) (ISCED levels 2, 3 and 4) in the [European Union \(EU\)](#) and forms part of an [online publication on education and training in the EU](#). Pupils enter lower secondary education (ISCED level 2) typically between the ages of 10 and 13 (age 12 being the most common), while they normally enter upper secondary education (ISCED level 3) between the ages of 14 and 16.

In general, compulsory education is completed at the end of lower secondary education, although in some countries it continues into upper secondary education. As its name suggests, post-secondary non-tertiary education (ISCED level 4) starts after the completion of upper secondary education.

School helps young people acquire basic life skills and competences that are necessary for their personal development. The quality of a pupil's school experience affects not only their development, but also their place in society, level of educational attainment, and employment opportunities.

The quality of education may be linked to teaching standards, which in turn are related to the demands placed upon teachers, the training they receive, the roles they are asked to fill and the resources that are made available for them to carry out their tasks. Equally, the quality of education may show local or regional variations, related to a variety of socio-demographic factors.

Participation by level

The number and share of students found in each of the two levels of secondary education — lower (ISCED level 2) and upper (ISCED level 3) — and in post-secondary non-tertiary education (ISCED level 4) varies between EU Member States. This reflects, to some degree, the demographic structure of each population and also country-specific policies relating to various aspects such as the length of compulsory education and the availability of further training outside of the education system and/or at the end of secondary education. In particular, it should be noted that post-secondary non-tertiary education, which prepares students for labour market entry as well as for tertiary education, does not exist in some of the Member States (Denmark, Croatia, Cyprus, the Netherlands and Slovenia) and is relatively uncommon in several others; it also does not exist in the United Kingdom, Liechtenstein, Montenegro or Turkey.

In the [EU-27](#), there were 18.3 million pupils in lower secondary education in 2018 — see Table 1. The number of pupils in upper secondary education was slightly lower, at 17.7 million across the EU-27. Post-secondary non-tertiary education was by far the smallest of the three education levels covered by this article, with 1.5 million pupils in the EU-27 in 2018.

In 2018, upper secondary pupils outnumbered lower secondary pupils in most of the EU Member States. The only exceptions were Romania, Czechia, Croatia, Slovakia, Lithuania, France and especially Germany: there were 2.1 million more lower secondary than upper secondary pupils in Germany. Among the [candidate countries](#), there were more lower secondary than upper secondary school pupils in Montenegro, North Macedonia and Serbia.

In 2018, the number of post-secondary non-tertiary pupils was considerably lower than the number of upper secondary pupils in all of the EU Member States. In Lithuania and Germany, the number of post-secondary non-tertiary pupils was equivalent to between one quarter and one third of the number of upper secondary pupils, with relatively high shares also recorded in Greece, Hungary and Poland. At the other end of the range, the number of post-secondary non-tertiary pupils was equivalent to less than 2.0 % of the number of upper secondary pupils in Spain, Malta, Portugal, France and Bulgaria; this was also the case in North Macedonia and Serbia. As noted above, this education level does not exist in Denmark, Croatia, Cyprus, the Netherlands or Slovenia nor in the United Kingdom, Liechtenstein Montenegro or Turkey.

Number of secondary and post-secondary non-tertiary education pupils, 2018

(thousands)

	Lower secondary			Upper secondary				Post-secondary non-tertiary					
	Total	Public	Private	Total	Public	Private	General	Vocational	Total	Public	Private	General	Vocational
EU-27 (*)	18 273.2	15 712.4	2 560.8	17 651.2	14 608.2	3 043.0	9 113.3	8 537.9	1 528.8	917.4	611.4	85.7	1 443.3
Belgium	428.7	177.4	251.2	750.6	308.9	441.8	324.1	426.5	61.6	14.6	47.0	4.4	57.2
Bulgaria	200.5	189.8	10.7	289.1	274.7	14.5	136.1	153.0	1.1	0.4	0.7	–	1.1
Czechia	398.4	383.6	14.8	388.7	324.3	64.4	111.7	277.0	16.2	13.1	3.1	10.3	5.9
Denmark	240.5	168.0	72.5	290.8	280.2	10.6	181.2	109.6	–	–	–	–	–
Germany	4 524.9	4 057.8	467.0	2 423.9	2 221.6	202.3	1 297.4	1 126.5	770.6	573.3	197.4	51.9	718.7
Estonia	39.3	37.7	1.6	44.7	43.2	1.6	26.8	18.0	4.7	4.4	0.3	–	4.7
Ireland	236.6	236.6	0.0	255.2	254.1	1.0	164.2	91.0	24.6	24.5	0.1	–	24.6
Greece	323.3	308.0	15.3	344.9	330.6	14.3	246.4	98.4	82.9	41.8	41.1	–	82.9
Spain	1 662.3	1 123.3	539.0	1 708.8	1 228.6	480.2	1 097.0	611.8	25.4	1.4	24.0	–	25.4
France	3 379.0	2 628.9	750.1	2 730.6	1 940.8	789.8	1 658.2	1 072.4	29.1	20.9	8.3	13.1	16.0
Croatia	174.5	173.2	1.4	158.0	151.7	6.3	48.7	109.3	–	–	–	–	–
Italy (†)	1 775.9	1 711.1	64.8	2 854.6	2 598.0	256.5	1 324.2	1 530.4	–	–	–	–	–
Cyprus	26.8	22.1	4.7	28.1	22.6	5.6	23.4	4.7	–	–	–	–	–
Latvia	56.5	55.3	1.2	60.8	57.6	3.2	37.2	23.6	4.6	4.4	0.2	–	4.6
Lithuania	164.4	157.9	6.5	68.6	67.0	1.6	50.2	18.4	18.5	18.4	0.2	–	18.5
Luxembourg	22.5	17.8	4.6	26.3	21.7	4.6	10.1	16.2	0.7	0.7	0.0	–	0.7
Hungary	391.8	320.4	71.4	416.8	306.7	110.1	258.5	158.3	76.4	61.0	15.4	–	76.4
Malta	12.8	6.9	5.9	18.1	13.0	5.2	13.0	5.2	0.2	0.1	0.2	0.2	0.0
Netherlands	802.3	789.6	12.7	830.2	736.2	93.9	269.7	560.5	–	–	–	–	–
Austria	341.3	306.7	34.6	346.1	308.3	37.9	109.3	236.9	17.4	10.0	7.4	–	17.4
Poland	1 102.7	1 022.2	80.4	1 289.7	1 099.1	190.6	617.7	672.0	235.4	29.7	205.6	–	235.4
Portugal	366.0	318.7	47.3	401.1	315.5	85.5	241.8	159.3	4.7	4.7	0.1	–	4.7
Romania	730.0	724.4	5.6	727.9	715.2	12.8	318.5	409.4	91.9	52.0	39.9	–	91.9
Slovenia	54.5	54.2	0.4	92.5	86.9	5.6	26.9	65.5	–	–	–	–	–
Slovakia	254.2	233.1	21.2	187.7	156.4	31.4	60.4	127.3	13.7	10.7	3.0	–	13.7
Finland	181.5	171.8	9.7	365.0	294.3	70.7	103.8	261.2	25.4	20.0	5.5	–	25.4
Sweden	382.3	316.0	66.2	552.3	451.0	101.3	356.8	195.4	23.6	11.3	12.3	5.7	17.9
United Kingdom	2 619.7	838.0	1 781.8	3 554.0	720.3	2 833.7	1 995.4	1 558.6	–	–	–	–	–
Iceland	12.8	12.6	0.2	22.4	17.6	4.8	16.1	6.3	1.3	0.5	0.8	0.0	1.3
Liechtenstein	1.5	1.4	0.1	1.6	1.5	0.0	0.5	1.0	–	–	–	–	–
Norway	195.5	187.0	8.5	253.8	229.9	24.0	128.5	125.3	7.2	2.4	4.7	–	7.2
Switzerland	256.1	234.2	21.9	352.7	301.3	51.4	128.2	224.5	12.7	3.9	8.8	3.0	9.8
Montenegro	28.8	28.8	0.1	28.3	28.1	0.1	9.2	19.1	–	–	–	–	–
North Macedonia	83.9	83.4	0.4	71.9	70.0	1.9	28.9	43.1	0.5	0.5	–	–	0.5
Serbia	278.9	278.5	0.4	250.9	247.3	3.7	65.3	185.6	1.4	1.4	–	–	1.4
Turkey	5 590.1	5 268.4	321.8	5 689.4	5 129.6	559.8	3 074.6	2 614.8	–	–	–	–	–

Note: according 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. This means that conventionally considered "private" institutions are only a subgroup of the total private institutions and are referred to as the independent private institutions.

(*) Upper secondary education: including post-secondary non-tertiary education for Italy. Post-secondary non-tertiary education: excluding Italy.

(†) Upper secondary education: including post-secondary non-tertiary education.

(-) not available.

(–) not applicable.

Source: Eurostat (online data codes: educ_uae_enrs01, educ_uae_enrs04 and educ_uae_enrs07)

eurostat 

Table 1: Number of secondary and post-secondary non-tertiary education pupils, 2018 (thousands) Source: Eurostat (educ_uae_enrs01), (educ_uae_enrs04) and (educ_uae_enrs07)

Public - private secondary education

In the EU-27, the vast majority (86.0 %) of lower secondary education pupils in 2018 were being taught in the public sector¹. At least two thirds of lower secondary school pupils were educated in the public sector across the vast

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. This means that conventionally considered 'private' institutions, are only a subgroup of the total private institutions and are referred to as the independent private institutions. Students in these latter institutions made up less than one fifth of the total number of students in all institutions in secondary education in each of the EU Member States in 2018, with this share below one tenth in 21 Member States and in five of these there were no such institutions.

majority of EU Member States. The only exceptions were Malta (where the public sector accounted for just over half the total number of students, 53.8 %) and Belgium (41.4 %) — see Table 1.

A clear majority (82.8 %) of pupils in upper secondary education in the EU-27 were taught in the public sector in 2018. At least two thirds of pupils in upper secondary education in 2018 were educated in the public sector in all but one of the EU Member States, with the lowest share reported once again in Belgium (41.1 %).

Among the 21 EU Member States for which data for post-secondary non-tertiary education are available for 2018 and for which there were some students enrolled at this level, the situation was somewhat different: Luxembourg, Ireland, Lithuania, Portugal and Latvia each reported that more than 95.0 % of all post-secondary non-tertiary students were educated in the public sector; this pattern was repeated in North Macedonia and Serbia. By contrast, a relatively high share of post-secondary non-tertiary students — at least three quarters — were educated in the private sector in Belgium, Poland and Spain.

Participation by type of programme

One aspect of upper secondary education where the overall situation for the EU-27 masked a great diversity among EU Member States was the distinction between general and vocational programmes. In the EU-27, a small majority (51.6 %) of upper secondary school pupils in 2018 followed a general programme of upper secondary education, with the remainder following vocational programmes. Among the EU Member States, the share of upper secondary pupils studying general programmes varied greatly. It was relatively low in Finland, Czechia and Slovenia, just below 30.0 %. In most other Member States, it was less than 75.0 %, but it exceeded this level in Cyprus (83.3 %). In total, 14 EU Member States reported a majority of upper secondary pupils following general programmes and 13 reported a majority following vocational programmes. Among the nine non-member countries shown in Table 1, Norway, Turkey, the United Kingdom and Iceland reported a majority of upper secondary pupils following general programmes.

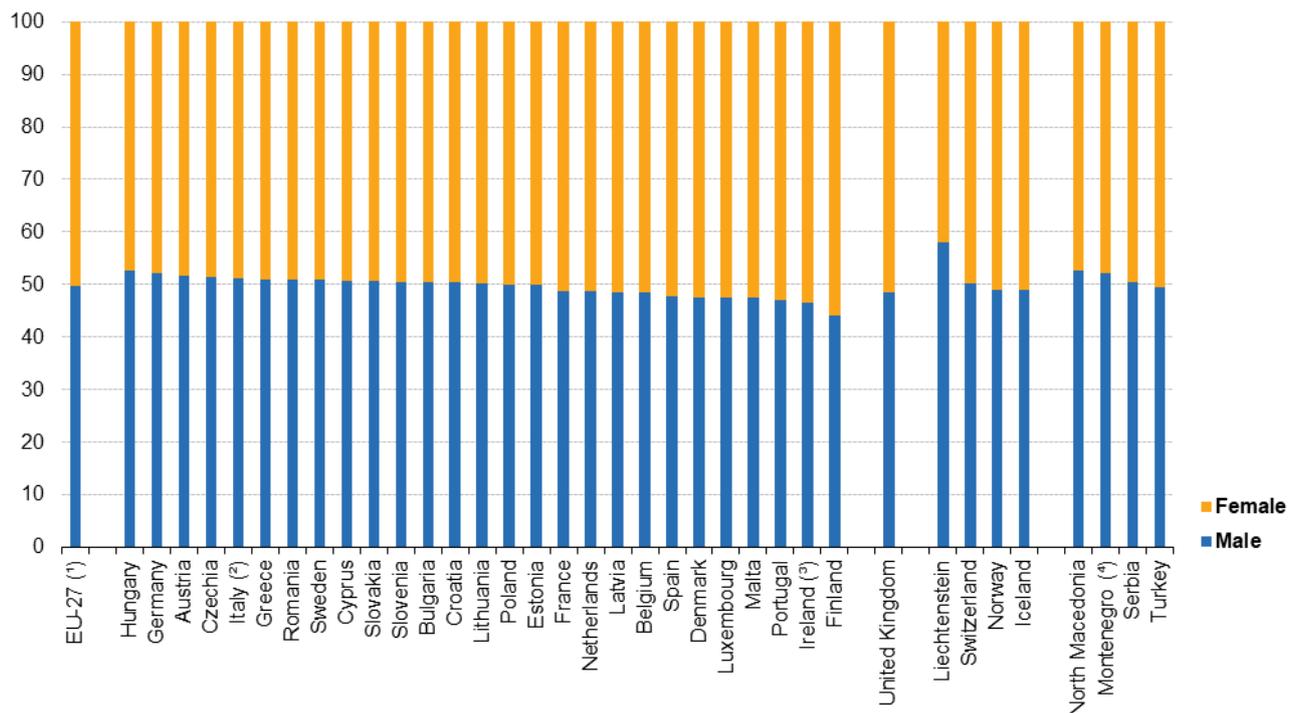
In contrast to the situation observed for upper secondary education, the vast majority (94.4 %) of pupils in post-secondary non-tertiary education in 2018 in the EU-27 followed vocational programmes. The dominance of vocational programmes observed for the EU-27 for this level of education was repeated in almost all of the EU Member States. In 15 Member States, all pupils at this level of education were following vocational programmes, and in a further two —Germany and Belgium — the share of pupils following vocational programmes exceeded 90 %. In Sweden and France, the share of pupils following vocational programmes was higher than the share for general programmes, while Czechia and Malta were the only Member States where a majority of pupils in post-secondary non-tertiary education were following general programmes: in fact, in Malta, all of the small number of students at this level followed general programmes.

Graduates

An analysis of pupils graduating from upper secondary (Figure 1) and post-secondary non-tertiary education (Figure 2) shows differences between the sexes. Generally, in upper secondary education the gender distribution was relatively balanced. In 2018, 14 of the EU Member States reported slightly more male graduates, reaching shares of 52.5 % in Hungary and 52.2 % in Germany, while 11 Member States reported more female graduates at this level of education, reaching a share of 56.0 % in Finland; there were almost equal numbers of male and female students in Estonia and Poland. Among the non-member countries shown in Figure 1, Liechtenstein reported an even higher share of male graduates than did Hungary, while the share in North Macedonia was the same as in Hungary.

Distribution of upper secondary education graduates by sex, 2018

(%)



(*) Including post-secondary non-tertiary education for Italy. Excluding independent private institutions for Ireland.

(*) Including post-secondary non-tertiary education.

(*) Excluding independent private institutions.

(*) 2017.

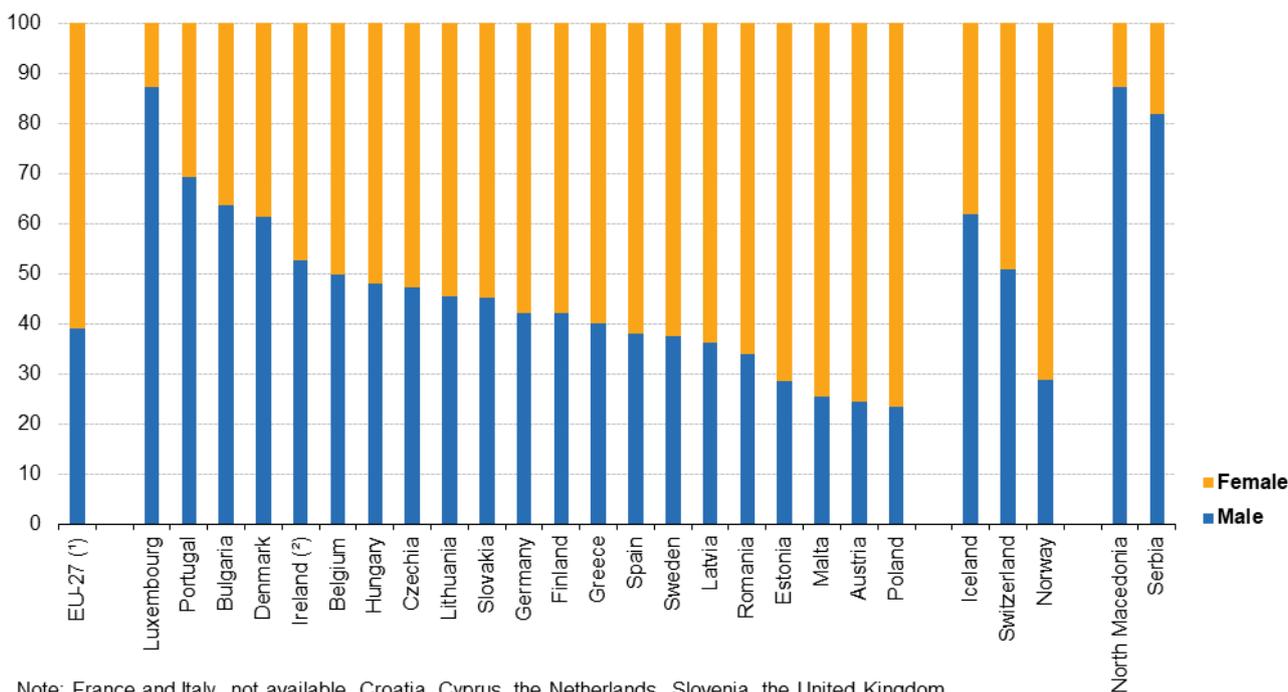
Source: Eurostat (online data code: educ_uoe_grad01)

eurostat

Figure 1: Distribution of upper secondary education graduates by sex, 2018 (%) Source: Eurostat (educ_uoe_grad01)

Among post-secondary non-tertiary education graduates, there was a fairly clear pattern of more female than male graduates — see Figure 2. In 2018, 60.9 % of all graduates at this level of education in the EU (see Figure 2 for coverage) were female. There were 16 EU Member States (among the 21 for which data are available) where there were more female than male graduates. The female share was close to three quarters in Poland, Austria and Malta. Among the five Member States where there were more male graduates than female graduates, the highest share for men was recorded in Luxembourg (87.3 %); a similarly high share for male graduates was recorded in North Macedonia (87.2 %). Norway was the only non-member country (for which data are available) where there was a higher share of female (rather than male) post-secondary non-tertiary education graduates.

Distribution of post-secondary non-tertiary education graduates by sex, 2018 (%)



Note: France and Italy, not available. Croatia, Cyprus, the Netherlands, Slovenia, the United Kingdom, Liechtenstein, Montenegro and Turkey: not applicable.

(*) Excluding France and Italy. Italian data included under upper secondary education. Excluding independent private institutions for Ireland.

(²) Excluding independent private institutions.

Source: Eurostat (online data code: educ_uoe_grad01)

eurostat

Figure 2: Distribution of post-secondary non-tertiary education graduates by sex, 2018 (%) Source: Eurostat (educ_uoe_grad01)

Teachers and pupil-teacher ratios

There were 1.62 million lower secondary teachers in the EU-27 in 2018 and a slightly lower number (1.55 million) of upper secondary teachers (see Table 2 for details of coverage); note that lower secondary teachers in Ireland are counted within the total for upper secondary education. Unlike their pupils, there was a large gender imbalance among teachers at these educational levels, although less so than the considerable differences observed for [pre-primary and primary education](#).

Within lower secondary education in 2018, men accounted for 32.1 % of all teachers in the EU-27, with this share ranging from below 18.0 % in Slovenia (2017 data) and the [Baltic Member States](#) up to highs of 46.2 % in Luxembourg and 46.3 % in the Netherlands. Among the non-member countries included in Table 2, the share of male teachers in lower secondary education was also relatively high in Liechtenstein and North Macedonia (both 40.1 %), Turkey (42.6 %) and Switzerland (44.4 %).

Men accounted for 38.7 % of upper secondary teachers in the EU-27 in 2018, in other words 6.6 [percentage points](#) more than their share for lower secondary education. Among the EU Member States, a broadly similar gender structure for teachers was observed for upper secondary education as for lower secondary education, in so far that all Member States recorded more female than male teachers. Nevertheless, in nearly all Member States, the gender gap was smaller for upper secondary education than for lower secondary education. In other words, the share of men teachers for upper secondary education was generally higher than for lower secondary education, but remained below 50 %. Luxembourg and the Netherlands were the only Member States where this was not the case, as the share of teachers in upper secondary education who were men was slightly lower than the equivalent share for lower secondary education.

Information on the gender distribution of teachers for post-secondary non-tertiary education is available for 17 EU Member States for 2018. In Luxembourg (71.8 %), Malta (60.0 %), France (59.5 %; excluding independent private

institutions), Czechia (56.6 %), Belgium and Sweden (both 55.5 %), a majority of post-secondary non-tertiary teachers were male; there was an equal balance between the sexes in Bulgaria. Among those Member States where women accounted for a majority of teachers at this level, the highest shares were recorded in Slovakia (68.3 %), Poland (69.0 %), Austria (69.1 %) and Romania (77.0 %).

Number of teachers in secondary and post-secondary non-tertiary education, 2018

(thousands)

	Lower secondary			Upper secondary			Post-secondary non-tertiary		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
EU-27 (*)	1 615.9	519.2	1 096.8	1 553.0	601.0	952.0	129.6	54.9	74.8
Belgium	49.6	17.9	31.7	82.7	30.7	52.0	5.6	3.1	2.5
Bulgaria	17.3	3.4	13.9	21.5	4.9	16.5	0.2	0.1	0.1
Czechia	32.1	7.1	25.0	33.0	13.3	19.7	0.5	0.3	0.2
Denmark	26.7	10.1	16.6	27.198	13.371	13.827	–	–	–
Germany	413.1	139.0	274.1	173.9	76.1	97.7	76.2	34.0	42.2
Estonia (*)	4.5	0.8	3.7	4.2	1.3	3.0	–	–	–
Ireland (*)	–	–	–	27.9	8.4	19.6	–	–	–
Greece	41.8	13.8	28.0	36.7	16.7	19.9	10.2	4.6	5.6
Spain	139.9	55.4	84.6	154.2	68.6	85.6	–	–	–
France (*)	241.9	95.4	146.5	216.1	87.2	128.8	1.2	0.7	0.5
Croatia	23.9	6.3	17.6	19.7	6.3	13.4	–	–	–
Italy	173.2	39.9	133.3	287.3	104.5	182.8	–	–	–
Cyprus	3.1	0.8	2.3	3.7	1.4	2.3	–	–	–
Latvia	7.4	1.1	6.3	6.6	1.3	5.3	0.2	0.1	0.2
Lithuania	21.7	3.8	17.9	8.1	1.7	6.4	1.4	0.5	0.9
Luxembourg	2.2	1.0	1.2	3.3	1.5	1.8	0.1	0.1	0.0
Hungary	38.2	8.9	29.3	38.4	14.0	24.3	8.8	3.4	5.3
Malta	1.9	0.6	1.3	2.5	1.0	1.5	0.0	0.0	0.0
Netherlands	58.4	27.0	31.4	56.1	25.9	30.3	–	–	–
Austria	44.6	12.3	32.2	29.7	13.2	16.5	1.0	0.3	0.7
Poland	86.5	21.3	65.2	142.0	48.6	93.4	19.9	6.2	13.7
Portugal (*)	40.0	11.2	28.8	42.7	13.2	29.5	–	–	–
Romania	68.2	18.5	49.7	55.4	15.8	39.6	1.9	0.4	1.4
Slovenia (*)	9.1	1.1	8.0	6.1	2.0	4.1	–	–	–
Slovakia	23.0	5.5	17.5	16.6	4.6	11.9	0.8	0.3	0.5
Finland	20.3	5.2	15.2	19.4	7.6	11.7	1.2	0.5	0.6
Sweden	36.3	12.6	23.7	38.1	17.6	20.5	0.5	0.3	0.2
United Kingdom	150.0	55.3	94.8	219.1	87.9	131.3	–	–	–
Iceland	1.4	0.2	1.1	–	–	–	–	–	–
Liechtenstein	0.3	0.1	0.2	0.1	0.0	0.0	–	–	–
Norway	24.8	6.3	18.5	27.9	12.7	15.2	0.5	0.2	0.3
Switzerland (*)	30.6	13.6	17.0	32.0	17.5	14.4	–	–	–
Montenegro (*)	4.9	1.1	3.8	2.0	0.7	1.3	–	–	–
North Macedonia	11.2	4.5	6.7	7.6	3.0	4.5	–	–	–
Serbia (*)	36.3	12.3	24.0	30.9	10.7	20.2	0.9	0.5	0.3
Turkey	339.9	144.8	195.0	348.0	174.0	174.0	–	–	–

(*) Lower secondary education: excluding Ireland and Slovenia. Upper secondary education: including lower secondary education for Ireland and post-secondary non-tertiary education for Italy. Post-secondary non-tertiary education excluding Estonia, Ireland, Italy and Portugal.

(*) Upper secondary education: including post-secondary non-tertiary education.

(*) Upper secondary education: including lower secondary education.

(*) Excluding independent private institutions.

(*) Post-secondary non-tertiary vocational education: included either in upper secondary education or tertiary education.

(*) Lower secondary education: 2017.

(*) Lower secondary education: including primary education.

(*) Post-secondary non-tertiary education: 2017.

(-) not available.

(-) not applicable.

Source: Eurostat (online data code: educ_uoe_perp01)

Table 2: Number of teachers in secondary and post-secondary non-tertiary education, 2018 (thousands)
Source: Eurostat (educ_uoe_perp01)

In 2018, [pupil-teacher ratios](#) in lower and upper secondary education were broadly similar to those observed for primary education. The pupil-teacher ratio for lower secondary education ranged among the EU Member States from less than 8.0 in Slovenia (2017 data), Malta, Lithuania and Greece, to 14.4 in France (excluding independent private institutions) and a peak of 16.1 in the Netherlands. Liechtenstein (7.3) was the only non-member country for which data are shown in Table 3 to record a pupil-teacher ratio that was less than 8.0 in 2018, while Turkey (15.9) reported a ratio that was almost as high as in the Netherlands.

Among the EU Member States, the pupil-teacher ratios were often similar in 2018 to what they had been in 2013. For lower secondary education, the changes ranged from an increase of 1.5 percentage points in Poland to a decrease of 2.2 percentage points in Slovenia (2013-2017), with the Netherlands (2014-2018) outside of this range, down 4.0 percentage points. For upper secondary education, the changes ranged from a decrease of 2.2

percentage points in Italy (including post-secondary non-tertiary education) to an increase of 1.6 percentage points in Estonia (including post-secondary non-tertiary education), with Finland outside of this range, up 2.9 percentage points.

Pupil-teacher ratios in secondary and post-secondary non-tertiary education, 2013 and 2018

(number of pupils per teacher)

	Lower secondary		Upper secondary		Post-secondary non-tertiary	
	2013	2018	2013	2018	2013	2018
EU-27 (*)	11.6	12.0	11.5	11.3	.	.
Belgium	9.3	8.9	9.9	9.6	15.2	16.1
Bulgaria	13.0	11.4	12.2	13.0	5.7	6.2
Czechia	11.2	12.4	11.1	11.4	31.0	14.0
Denmark (*) ^(*)	11.0	10.9	13.1	11.7	–	–
Germany	13.6	13.0	13.2	12.6	13.4	12.7
Estonia (*)	9.8	10.1	14.1	15.7	.	.
Ireland (*) ^(*)	.	.	13.9	.	.	.
Greece	7.3	7.9	8.1	9.4	.	.
Spain	11.6	11.9	11.0	10.5	–	–
France (*)	14.4	14.4	11.1	11.4	.	.
Croatia	9.1	8.5	9.7	8.1	–	–
Italy (*)	11.7	11.0	12.6	10.4	.	.
Cyprus	9.6	9.6	9.9	8.6	17.6	–
Latvia (*)	7.8	8.6	10.2	10.7	15.5	25.2
Lithuania	7.6	7.6	8.0	8.0	12.7	15.0
Luxembourg	11.2	10.7	7.1	8.6	.	11.8
Hungary	10.4	11.0	12.0	11.9	13.0	8.2
Malta	7.4	6.8	9.2	7.7	8.9	15.6
Netherlands (*)	20.1	16.1	.	17.6	20.1	–
Austria	9.0	8.5	9.9	10.1	10.4	11.3
Poland	9.9	11.4	11.0	9.6	16.0	14.2
Portugal (*)	10.4	9.4	8.4	9.0	.	.
Romania	12.8	11.5	15.7	13.6	68.7	58.2
Slovenia (*) ^(*)	8.2	6.0	13.5	13.7	–	–
Slovakia	12.5	12.5	13.6	13.5	13.2	13.5
Finland	9.0	8.9	16.0	18.9	16.8	21.8
Sweden	12.0	11.1	12.8	13.6	11.1	10.5
United Kingdom (*)	18.5	15.8	18.5	18.0	–	–
Iceland	10.5	10.1
Liechtenstein	7.9	7.3	8.1	11.4	–	–
Norway	9.8	8.9	10.3	10.2	.	11.7
Montenegro (*) ^(*)	.	14.0	.	14.4	–	–
North Macedonia	9.3	8.5	13.1	10.3	–	–
Serbia (*) ^(*)	11.2	10.4	11.1	10.1	.	2.1
Turkey	19.3	15.9	15.6	12.3	–	–

(*) Lower secondary education: 2013, excluding Denmark, Ireland and the Netherlands; 2018, excluding Ireland and Slovenia. Upper secondary education: including post-secondary non-tertiary education for Italy; 2013, including lower secondary education for Ireland, excluding the Netherlands; 2018, excluding Ireland.

(*) 2014 instead of 2013.

(*) Break in series.

(*) Upper secondary education: including post-secondary non-tertiary education.

(*) Upper secondary education: including lower secondary education.

(*) Excluding independent private institutions.

(*) Excludes government dependent private institutions.

(*) Lower secondary education: 2014 instead of 2013.

(*) Post-secondary non-tertiary vocational education: included either in upper secondary education or tertiary education.

(*) Lower secondary education: 2017 instead of 2018.

(*) Lower secondary education: including primary education.

(*) Post-secondary non-tertiary education: 2017 instead of 2018.

(-) not available.

(-) not applicable.

Source: Eurostat (online data code: educ_uoe_perp04)

Table 3: Pupil-teacher ratios in secondary and post-secondary non-tertiary education, 2013 and 2018 (number of pupils per teacher) Source: Eurostat (educ_uoe_perp04)

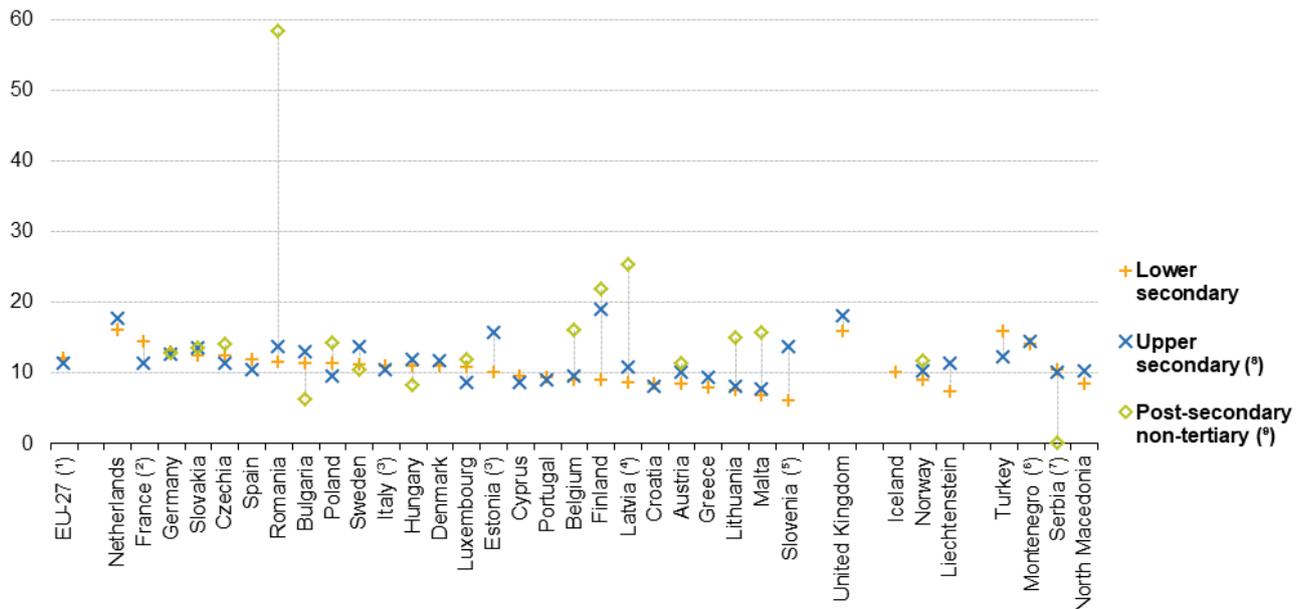
In 16 of the 26 EU Member States for which 2018 data are available (no data for Ireland), pupil-teacher ratios for lower secondary education were lower than those reported for upper secondary education. France had a particularly low ratio for upper secondary education (11.4 pupils per teacher) compared with its ratio for lower secondary education (14.4). By contrast, Estonia, Slovenia and Finland reported notably higher ratios for upper secondary education than for lower secondary education, 5.6 pupils per teacher higher in Estonia (note that the ratio for upper secondary education includes post-secondary non-tertiary education), 7.7 higher in Slovenia (comparing with 2017 data for lower secondary education) and 10.0 higher in Finland — see Figure 3.

2018 data for pupil-teacher ratios for post-secondary non-tertiary education are available for 15 of the EU Member States. The ratio for post-secondary non-tertiary education was higher than that for upper secondary education in

all but four of these: the exceptions were Sweden, Hungary and Bulgaria with lower ratios and Slovakia where the ratios were the same. A particularly high pupil-teacher ratio was reported for post-secondary non-tertiary education in Romania (58.2 pupils per teacher) and relatively high ratios were also recorded for Latvia and Finland (both over 20.0 pupils per teacher) — see Figure 3.

Pupil-teacher ratios in secondary and post-secondary non-tertiary education, 2018

(number of pupils per teacher)



Note: ranked on ratio for lower secondary education. Ireland: not available.

(*) Lower secondary education: excluding Ireland and Slovenia. Upper secondary education: including post-secondary non-tertiary education for Italy and excluding Ireland.

(**) Excluding independent private institutions.

(*) Upper secondary education: including post-secondary non-tertiary education.

(*) Excludes government dependent private institutions.

(*) Lower secondary education: 2017 instead of 2018.

(*) Lower secondary education: including primary education.

(*) Post-secondary non-tertiary education: 2017.

(*) Iceland: not available.

(*) EU-27, Estonia, Greece, France, Italy, Portugal and Iceland: not available. Denmark, Spain, Croatia, Cyprus, the Netherlands, Slovenia, the United Kingdom, Liechtenstein, Montenegro, North Macedonia and Turkey: not applicable.

Source: Eurostat (online data code: educ_uae_perp04)

eurostat

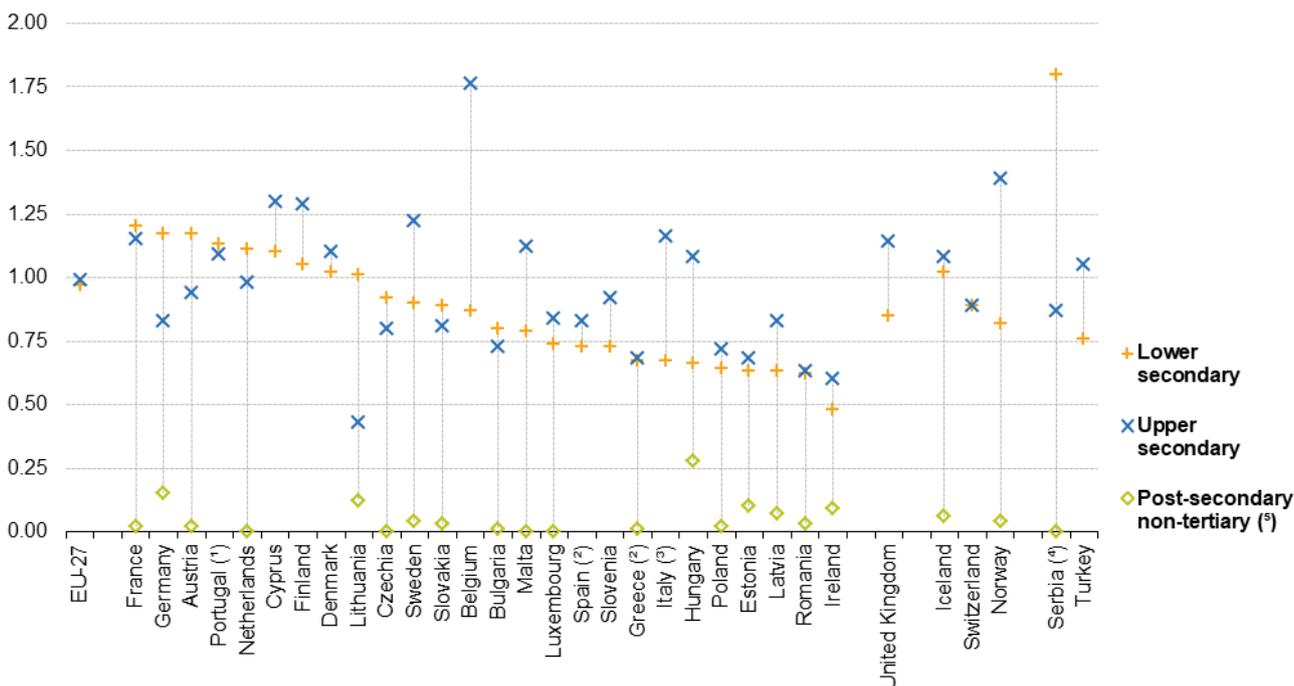
Figure 3: Pupil-teacher ratios in secondary and post-secondary non-tertiary education, 2018 (number of pupils per teacher) Source: Eurostat (educ_uae_perp04)

Finance

The relative importance of public financial resources devoted to education may be measured by [public expenditure](#) on various levels of education relative to [gross domestic product \(GDP\)](#) . For lower secondary education in 2017 (see Figure 4; no data available for Croatia), this ratio varied from 0.5 % in Ireland and 0.6 % in Romania, Latvia, Estonia and Poland to 1.2 % in Austria, Germany and France.

Public expenditure on secondary education relative to GDP, 2017

(%)



Note: ranked on share of lower secondary education. Croatia: not available.

(*) 2015; excluding Denmark.

(*) 2014.

(*) 2015.

(*) Post-secondary non-tertiary education: included in upper secondary or tertiary education.

(*) Post-secondary non-tertiary education: included in upper secondary education.

(*) Post-secondary non-tertiary education: 2015.

(*) EU-27, Belgium, Portugal, Finland, Switzerland and Serbia: not available. Denmark, Spain, Slovenia, the United Kingdom and Turkey: not applicable.

Source: Eurostat (online data codes: educ_uae_fine06)

eurostat

Figure 4: Public expenditure on secondary education relative to GDP, 2017 (%) Source: Eurostat (educ_uae_fine06)

Public expenditure on upper secondary education relative to GDP was within a broadly similar range, with a low of 0.4 % recorded in Lithuania, while the ratio was 1.3 % in both Finland and Cyprus, peaking at 1.8 % in Belgium.

Turning to post-secondary non-tertiary education, data are available for 18 EU Member States, with Hungary having the highest value (0.3 %) of public expenditure relative to GDP in 2017. In 14 of the remaining 17 Member States, public expenditure on this level of education in 2017 was less than 0.1 % of GDP.

In a majority of the EU Member States expenditure in 2017 on upper secondary education exceeded that on lower secondary education. Nevertheless, there were nine exceptions among the 26 Member States for which data are available (no information for Croatia): Portugal, France, Bulgaria, Slovakia, Czechia and the Netherlands where the difference was at most 0.13 percentage points of GDP; Austria (0.23 points), Germany (0.34 points) and Lithuania (0.58 points). Among those Member States where expenditure was higher for upper secondary education, the gap between upper and lower secondary expenditure, relative to GDP, peaked at 0.89 percentage points in Belgium, 0.49 percentage points in Italy (note the share for upper secondary education includes post-secondary non-tertiary education) and 0.42 percentage points in Hungary.

Source data for tables and graphs

[Secondary 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 (as shown in this article).

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 pupils and teachers 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.

Students typically enter ISCED level 2, or lower secondary education, between the ages of 10 and 13. Programmes at this level are typically designed to build on the learning outcomes from ISCED level 1. They are usually organised around a more subject-oriented curriculum, introducing theoretical concepts across a broad range of subjects. Teachers typically have pedagogical training in specific subjects and a class of students may have several teachers with specialised knowledge of the subjects they teach.

Students typically enter ISCED level 3, or upper secondary education, between the ages of 14 and 16. Programmes at this level are typically designed to complete secondary education in preparation for tertiary education or to provide skills relevant for the labour market, or both. They offer students more varied, specialised and in-depth instruction, while teachers are often highly-qualified in the subjects or fields of specialisation they teach.

Post-secondary non-tertiary education, ISCED level 4, provides learning experiences which build on secondary education, preparing students for labour market entry as well as tertiary education. It aims at the individual acquisition of knowledge, skills and competencies, although at a lower level of complexity than is characteristic of tertiary education. Programmes classified at ISCED level 4 may be referred to in many ways, for example: technical diplomas, technicians, or primary professional education.

Key concepts

[Pupil-teacher ratios](#) are calculated by dividing the number of [full-time equivalent](#) pupils and students in each level of education by the number of full-time equivalent teachers at the same level; 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

Demographic developments in the last three decades are reflected in reduced [birth rates](#) that, in turn, have impacted upon the structure of the EU's population: the proportion of people aged under 30 has decreased in a majority of the EU Member States. These changes can have a significant impact on human and material resources required for the sound functioning of education systems, such as average class sizes or teacher recruitment strategies.

ET 2020 strategic framework

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 that: the share of [early leavers from education and training](#) should be less than 10 % (see the [article on early leavers](#) for more information); the share of low-achieving 15-year-olds in reading, mathematics and science should be less than 15 %.

EU Member States have agreed on the following priority areas for schools:

- all pupils should develop a set of key competences for lifelong learning;
- each pupil should benefit from high-quality learning experiences;
- support for learners with special educational needs should be improved;
- teachers, school leaders and teacher educators should receive more support, including continued opportunities for professional development;
- quality assurance should be developed to ensure a more effective, equitable and efficient governance of school education.
- schools need to respond to the pace of technological and digital change that results in profound changes to economies and society.

Each of these issues is touched upon by a European Commission [Communication on school development and excellent teaching for a great start in life](#) (SWD(2017) 248 final) that was adopted in May 2017.

Other articles

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

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 finance (educ_uoe_fin)

Dedicated section

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

Methodology

Metadata

- [Education administrative data from 2013 onwards \(ISCED 2011\)](#) (ESMS metadata file — educ_uoe_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

- [European Commission — Education and training monitor](#)
- [European Commission — Education and training — Key competences](#)
- [European Commission — Education and training — Strategic framework for education and training](#)
- [Eurydice — Better knowledge for better education policies](#)
- [OECD — Early childhood and schools](#)
- [UNESCO — Education transforms lives](#)