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Education and training

Education, vocational training and more generally lifelong learning play a vital role in both an economic and social context. The opportunities which the European Union (EU) offers its citizens for living, studying and working in other countries make a major contribution to cross-cultural understanding, personal development and the realisation of the EU's full economic potential. Each year, well over a million EU citizens of all ages benefit from EU-funded educational, vocational and citizenship-building programmes.

The Treaty establishing the European Community acknowledged the importance of these areas by stating that 'the Community shall contribute to the development of quality education by encouraging cooperation between Member States and, if necessary, by supporting and supplementing their action ... The Community shall implement a vocational training policy which shall support and supplement the action of the Member States'. As such, the European Commission follows up on policy cooperation and work with the Member States, while funding programmes such as the lifelong learning programme (LLP).

Political cooperation within the EU has been strengthened through the education and training 2010 work programme which integrated previous actions in the fields of education and training. The follow-up to this programme is the strategic framework for European cooperation in education and training which was adopted by the Council in May 2009. This set a number of benchmarks to be achieved by 2020:

- at least 95 % of children between the age of four and the age for starting compulsory primary education should participate in early childhood education;
- the share of low-achieving 15-year-olds with insufficient abilities in reading, mathematics and science should be less than 15 %;



- the share of early leavers from education and training should be less than 10 %;
- the share of 30 to 34-year-olds with tertiary educational attainment should be at least 40 %;
- an average of at least 15 % of adults aged 25 to 64 should participate in lifelong learning.

The Bologna process put in motion a series of reforms to make European higher education more compatible, comparable, competitive and attractive for students. Its main objectives were: the introduction of a three-cycle degree system (bachelor, master, doctorate); quality assurance; and recognition of qualifications and periods of study. Through these objectives one of the operational goals was to remove the obstacles to student mobility across Europe, and more broadly support the mobility of students, teachers and researchers.

The Bologna process set out plans to create a European higher education area and in March 2010 the Ministers of the 47 participating countries adopted the Budapest-Vienna Declaration and officially launched the European higher education area (EHEA). The next decade will be aimed at consolidating the EHEA and making it operational.

Since 2002 national authorities and social partners from 32 European countries are taking part in the Copenhagen process to help develop vocational education and training systems. The overall aim is to encourage more individuals to make wider use of vocational learning opportunities, whether at school, in higher education, in the workplace, or through

private courses. The actions and tools developed as part of the process aim to allow users to link and build on learning acquired at various times, in both formal and non-formal contexts.

The lifelong learning programme has been a flagship programme of the European Commission in the field of education and training since 2007, covering all learning opportunities from childhood to old age. Over the period 2007 to 2013, this programme has a budget of nearly EUR 7 000 million in order to support projects that foster interchange, cooperation and mobility between education and training systems within the EU. It is made up of four sub-programmes that focus on the different stages of education and training, each with quantified targets:

- Comenius for schools should involve at least 3 million pupils in joint educational activities over the period of the programme;
- Erasmus for higher education should reach a total of 3 million individual participants in student mobility actions since the action began;
- Leonardo da Vinci for vocational education and training should increase placements in enterprises to 80 000 persons per year by the end of the programme;
- Grundtvig for adult education should support the mobility of 7 000 individuals involved in adult education each year by 2013.

The measurement of progress towards these objectives within the field of education policy requires a range of comparable statistics on enrolment in



education and training, numbers of graduates and teachers, language learning, student and researcher mobility, educational expenditure, as well as data on educational attainment and adult learning. Education statistics cover a range of subjects, including: expenditure, personnel, participation rates, and attainment. 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 Co-operation and Development (OECD), and;

- the statistical office of the European Union (Eurostat).

The main source of data is a joint UNESCO/OECD/Eurostat (UOE) questionnaire on education statistics and this is the basis for the core components of the Eurostat database on education statistics; Eurostat also collects data on regional enrolments and foreign language learning. Data on educational attainment and adult learning are mainly provided by household surveys, in particular the EU labour force survey (LFS), which is complemented by an adult education survey.

4.1 School enrolment and levels of education

School helps young people acquire the basic life skills and competences necessary for their personal development. The quality of a pupil's school experience affects not only their development, but also his or her place in society, educational attainment, and employment opportunities. The quality of the education may be linked to teaching standards, which in turn are related to the demands placed upon teachers, the training they receive and the roles they are asked to fill.

With this in mind, several European Union (EU) Member States are revising their school curricula in line with the changing needs of society and the economy, as well as reflecting on how

to improve teacher training and evaluation. This subchapter presents statistical data on relevant aspects of teaching and education in the EU, such as class sizes and enrolments.

Main statistical findings

The level of educational enrolment depends on a wide range of factors, such as the age structure of the population, legal requirements concerning the start and end of compulsory education, and the availability of educational resources – in particular, access to specialist tertiary education may be limited in some of the smallest Member States.



In 2008, there were about 93.1 million pupils and students enrolled in educational establishments in the EU-27. The highest share of pupils and students in the EU-27 total was accounted for by Germany, where 14.1 million pupils and students attended educational establishments in 2008; this figure was 1.4 million higher than the next largest student population in the United Kingdom, and 1.8 million higher than in France (see Table 4.1).

The proportion of students found in each level of education varied somewhat between the Member States, most notably for primary and lower secondary levels of education. This variation reflects, to some degree, the demographic structure of each population. The high proportion of pupils in primary education in Luxembourg (44.4 % in 2008), for example, reflects the lack of a developed tertiary education sector in this country. At the other end of the spectrum, Greece, Slovenia, the Baltic Member States, Romania and Poland all had relatively high proportions (more than one quarter) of their student populations within the tertiary education sector.

The figures above exclude pre-primary education – where 90.1 % of all four-year-olds in the EU-27 were in education in 2008 (see Figure 4.1). The general objectives for pre-primary education are fairly similar across countries, focusing on the development of children's independence, well-being, self-confidence, citizenship, and preparation for life and learning at school. Enrolment in pre-primary education is normally voluntary and participation rates of four-year-olds ranged

from 100 % in France, to less than one child in two across Ireland and Poland. The strategic framework for European cooperation in education and training adopted in May 2009 set a benchmark to be achieved by 2020 that at least 95 % of children between the age of four and the age for starting compulsory primary education should participate in early childhood education.

More than three quarters (76.8 %) of all 18-year-olds within the EU-27 remained within the education system in 2008. However, this ratio rose to above 90 % in five Member States, while just over half of all 18-year-olds were still attending an educational establishment in Malta and the United Kingdom; the ratio was lower still in Cyprus (see Figure 4.2). These figures may reflect a number of factors, in particular the need for students to go abroad to continue their (tertiary) education, or the practise of making students re-take a whole year if their performance at the end of an academic year is deemed unsatisfactory.

School expectancy is a related indicator, as Member States with longer school expectancy generally have a higher proportion of 18-year-olds in education. Nevertheless, Ireland and Italy had a larger proportion of 18-year-olds in education than the average for the EU-27, but a length of school expectancy in line with or below the EU-27 average. Greece and Portugal had the reverse situation, with amongst the lowest proportions of 18-year-olds in education, despite longer than average school expectancy (see Figure 4.3).



Pupil/teacher ratios

Pupil/teacher ratios within primary education ranged from an average of less than 11 pupils per teacher in Lithuania, Denmark, Greece (2007), Poland, Italy, Hungary and Malta in 2008, to almost double that rate in France and the United Kingdom (both above 19 pupils per teacher). Between 2003 and 2008 there was a general reduction in the average number of pupils per teacher within primary education establishments in most of the Member States, with the most notable increases in Slovenia and Luxembourg (see Table 4.2).

In 2008 the average number of pupils per teacher was generally lower for secondary education than for primary education. Nevertheless, Italy recorded higher average numbers of pupils per teacher within upper secondary education than in primary education, as did Malta, Finland and Sweden, while Hungary and Poland recorded higher average pupil numbers in both lower and upper secondary education than in primary education.

Youth education attainment level and early leavers from education and training

Data on educational attainment show that, in 2009, just over three quarters (78.6 %) of the EU-27's population aged 20 to 24 had completed at least an upper secondary level of education, a figure that reached 81.4 % for women. However, 14.4 % of those aged 18 to 24 (16.3 % of men and 12.5 % of women) were early leavers from education and training (previously called *early school*

leavers), with at most a lower secondary education. This share fell from 16.1 % five years earlier, with large reductions in percentage point terms in Cyprus, Portugal, Bulgaria, Romania and Malta (see Table 4.3). The strategic framework for European cooperation in education and training adopted a benchmark to be achieved by 2020 that the share of early leavers from education and training should be less than 10 %.

Data sources and availability

The international standard classification of education (ISCED) is the basis for international education statistics, describing different levels of education, as well as fields of education and training. The current version, ISCED 97, distinguishes seven levels of education: pre-primary education (level 0); primary education (level 1); lower secondary education (level 2); upper secondary education (level 3); post-secondary non-tertiary education (level 4); tertiary education (first stage) (level 5); tertiary education (second stage) (level 6).

The indicator for four-year-olds in education presents the percentage of four-year-olds who are enrolled in education-oriented pre-primary institutions. These institutions provide education-oriented care for young children. They must recruit staff with specialised qualifications in education. Day nurseries, playgroups and day care centres, where the staff are not required to hold a qualification in education, are not included.

The indicator for 18-year-olds who are still in any kind of school (all ISCED levels) provides an indication of the number



of young people who have not abandoned their efforts to improve their skills through initial education; it includes both those who had a regular education career without any delays, as well as those who are continuing even if they had to repeat some steps in the past.

The indicator of school expectancy corresponds to how many years, on average, a child starting in school can expect to stay at school (calculated by adding the single-year enrolment rates for all ages).

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; all institutions, both public and private, are included. This ratio should not be confused with average class-size. There can be a difference between the number of hours of teaching provided by individual teachers and the number of hours of instruction prescribed for pupils; more than one teacher can be teaching in a class at the same time; or teachers for special education needs can work with small groups or on a one-to-one basis.

Youth education attainment is defined as the proportion of the population aged 20 to 24 having completed at least an upper secondary education, in other words, those with a minimum education level of ISCED levels 3a, 3b or 3c long. The denominator consists of the total population of the same age group, excluding non-response.

The indicator for early leavers from education and training is defined as the pro-

portion of the population aged 18 to 24 with at most a lower secondary level of education (ISCED levels 1, 2 or 3c short), who are no longer in further education or training; respondents declared not having received any education or training in the four weeks preceding the survey. The denominator consists of the total population of the same age group, excluding non-response.

Context

Demographic trends in the last three decades reflect reductions in birth rates that have resulted in the structure of the EU's population ageing and the proportion of those aged under 30 decreasing in the majority of 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.

In general, compulsory education is completed at the end of lower secondary education, although in some countries it continues into upper secondary education. On average, compulsory education lasts nine or ten years in most of the EU: lasting longest in Hungary, the Netherlands and the United Kingdom. Age is generally the sole criterion for admission to compulsory primary education, which starts at the age of five or six in most Member States, although Bulgaria, the Baltic Member States, Finland and Sweden have a compulsory starting age of seven.

Most Europeans spend significantly longer in education than the legal minimum requirement. This reflects the choice to en-



rol in higher education, as well as increased enrolment in pre-primary education and wider participation in lifelong learning initiatives, such as mature (adult) students returning to education – often in order to retrain or equip themselves for a career change.

While national curricula include broadly the same subjects across the Member States, the amount of time allocated to each subject varies considerably. In addition, there are wide-ranging differences in the freedoms that schools and teachers have: to shape the content of their classes, or to follow a strict curriculum. The most significant differences between countries tend to relate to the degree of instruction given in foreign languages, information and communication technology, artistic activities, or religious/moral instruction. In contrast, all countries allocate a considerable amount of time to teach their mother tongue and mathematics, particularly in primary education. Teaching time

tends to be more evenly spread across subjects in compulsory secondary education, with an increasing emphasis given to natural and social sciences, as well as foreign languages.

As part of the lifelong learning programme the Comenius programme addresses developments in education and school policy and aims to:

- improve and increase the mobility of pupils and educational staff;
- enhance and increase partnerships between schools in different Member States, with at least three million pupils taking part in joint educational activities by 2010;
- encourage language learning, innovative ICT-based content, services and better teaching techniques and practices;
- enhance the quality and European dimension of teacher training;
- improve pedagogical approaches and school management.

**Table 4.1:** Pupils and students (excluding pre-primary education) ⁽¹⁾

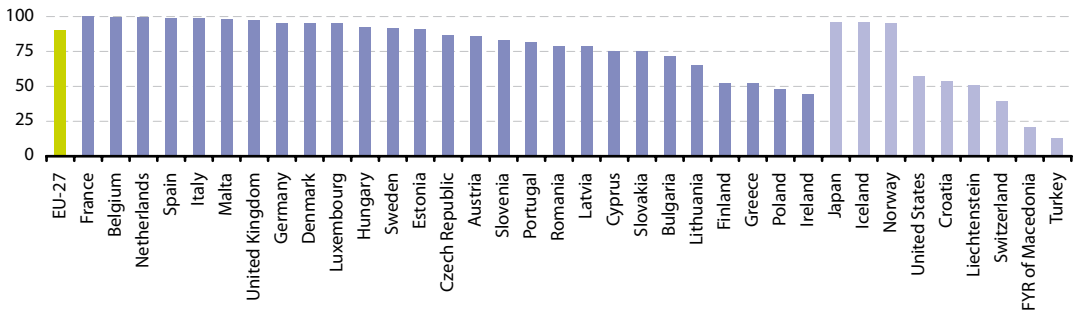
	Total (ISCED 1-6) (1 000)		Breakdown of total number of pupils and students (% of total)							
			Primary level of education (ISCED 1)		Lower secondary level of education (ISCED 2)		Upper and post- secondary non-tertiary education (ISCED 3-4)		Tertiary education (ISCED 5-6)	
	2003	2008	2003	2008	2003	2008	2003	2008	2003	2008
EU-27	97 027	93 116	29.9	30.4	24.6	23.8	:	25.3	18.3	20.4
Belgium	2 373	2 428	32.1	30.2	17.7	13.7	34.3	39.5	15.8	16.5
Bulgaria	1 274	1 142	26.1	23.0	27.3	23.2	28.4	30.6	18.1	23.2
Czech Republic	1 928	1 855	29.4	24.8	26.5	23.3	29.2	30.7	14.9	21.2
Denmark	1 069	1 152	39.3	35.6	21.0	21.4	20.9	22.9	18.9	20.0
Germany	14 525	14 065	22.7	23.0	39.0	35.6	22.3	24.9	15.4	16.0
Estonia	298	258	33.6	29.0	22.3	18.8	22.8	25.7	21.3	26.5
Ireland	1 001	1 053	44.7	46.2	17.5	16.5	19.6	20.4	18.1	16.9
Greece	1 961	2 009	33.3	31.7	17.4	17.1	20.7	19.5	28.6	31.7
Spain	7 382	7 615	33.7	36.3	26.7	25.8	14.6	14.5	24.9	23.4
France	11 884	12 265	31.9	33.7	27.6	26.4	22.0	22.2	17.8	17.6
Italy	9 266	9 510	30.0	30.1	19.8	18.5	29.5	30.2	20.6	21.2
Cyprus	146	148	43.1	38.3	22.5	22.1	21.8	22.3	12.5	17.3
Latvia	506	431	20.4	27.2	34.8	19.2	21.3	23.9	23.5	29.7
Lithuania	807	738	22.7	18.4	41.6	37.4	14.9	16.5	20.8	27.7
Luxembourg	73	80	46.8	44.4	23.1	24.5	26.0	27.3	4.2	3.8
Hungary	1 968	1 873	23.6	21.1	25.6	24.0	31.0	32.8	19.8	22.1
Malta	79	74	40.3	36.2	36.7	34.9	11.6	16.2	11.4	12.8
Netherlands	3 239	3 380	39.8	38.0	24.4	22.8	19.5	21.4	16.3	17.8
Austria	1 429	1 468	26.6	23.0	27.5	26.0	29.8	31.6	16.1	19.4
Poland	9 077	8 168	32.9	29.1	19.0	18.0	26.3	26.4	21.8	26.5
Portugal	1 962	2 109	39.9	36.7	20.1	25.0	19.6	20.5	20.4	17.9
Romania	3 915	3 904	25.3	22.2	30.8	23.7	27.4	27.1	16.4	27.1
Slovenia	408	388	21.4	25.6	22.7	17.3	31.0	27.4	24.9	29.8
Slovakia	1 104	1 059	24.5	21.2	34.5	29.3	26.7	27.8	14.3	21.7
Finland	1 193	1 251	32.9	28.6	16.3	16.2	26.3	30.5	24.5	24.7
Sweden	2 119	2 023	36.6	33.0	18.5	19.7	25.4	27.2	19.6	20.1
United Kingdom	16 043	12 671	28.0	35.2	14.6	19.3	:	27.0	14.3	18.4
Iceland	80	87	39.3	34.6	16.5	16.1	27.4	30.2	16.7	19.2
Liechtenstein	6	6	37.6	34.3	27.8	28.0	26.9	25.0	7.5	12.7
Norway	1 036	1 078	41.8	39.9	16.9	17.5	20.8	22.9	20.5	19.7
Switzerland	1 315	1 355	40.7	37.3	21.7	21.8	22.7	23.5	14.1	16.6
Croatia	725	722	26.5	25.2	29.7	28.8	27.1	26.1	16.8	19.9
FYR of Macedonia	381	385	30.6	29.9	32.2	28.2	25.2	24.8	12.0	17.0
Turkey	15 565	16 649	66.4	65.3	-	-	21.3	19.5	12.3	15.2
Japan	19 646	18 658	37.0	38.4	19.8	19.6	21.7	19.9	20.3	21.1
United States	65 738	68 041	37.8	36.3	19.7	18.9	17.2	18.0	25.3	26.8

⁽¹⁾ Refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/educ_esms.htm).

Source: Eurostat (tps00051 and educ_enr1tl)



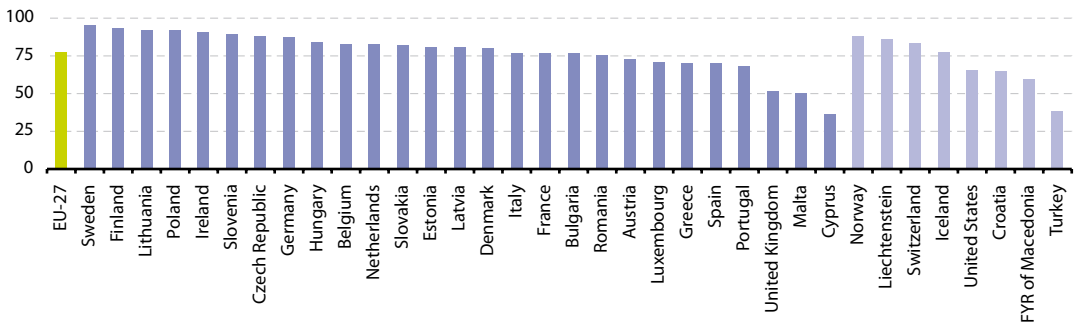
Figure 4.1: Four-year-olds in education, 2008⁽¹⁾
(% of all four-year-olds)



⁽¹⁾ Refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/educ_esms.htm).

Source: Eurostat (tps00053)

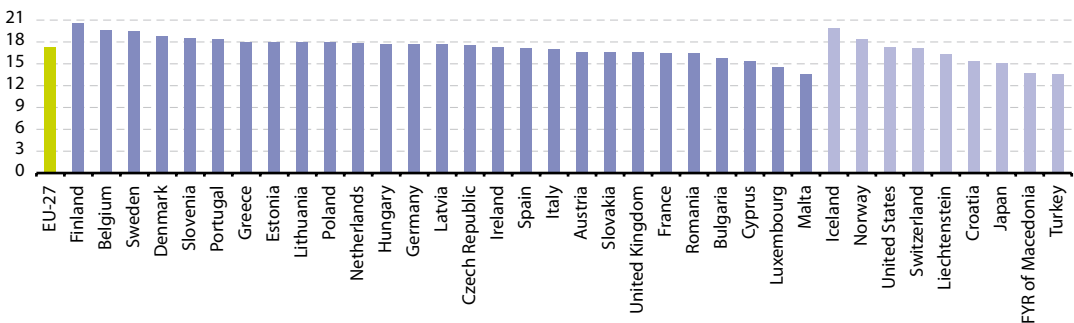
Figure 4.2: 18-year-olds in education, 2008⁽¹⁾
(% of all 18-year-olds)



⁽¹⁾ Refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/educ_esms.htm).

Source: Eurostat (tps00060)

Figure 4.3: School expectancy, 2008⁽¹⁾
(years)



⁽¹⁾ School expectancy corresponds to the expected years of education over a lifetime and has been calculated adding the single-year enrolment rates for all ages.

Source: Eurostat (tps00052)



Table 4.2: Pupil-teacher ratio in primary, lower and upper secondary education ⁽¹⁾
(average number of pupils per teacher)

	Primary education (ISCED 1)		Lower secondary/second stage of basic education (ISCED 2)		Upper secondary education (ISCED 3)	
	2003	2008	2003	2008	2003	2008
Belgium	13.1	12.6	10.6	8.1	9.6	10.8
Bulgaria	17.2	16.1	13.3	12.0	11.9	11.5
Czech Republic	18.3	18.1	14.3	11.8	12.6	14.0
Denmark	10.8	10.1	:	:	13.4	:
Germany	18.7	18.0	15.6	15.0	13.7	14.0
Estonia	:	16.4	:	16.0	:	12.4
Ireland	18.7	17.8	13.9	:	13.9	12.9
Greece ⁽²⁾	12.1	10.1	8.7	7.7	8.6	7.3
Spain	14.3	13.1	13.3	10.3	7.9	8.7
France	19.4	19.9	13.7	14.6	10.6	9.4
Italy	10.9	10.6	10.3	9.7	10.8	11.8
Cyprus	19.2	15.0	12.8	10.8	12.0	10.6
Latvia	15.9	12.8	13.1	9.2	12.2	11.9
Lithuania	12.2	9.7	9.3	7.7	:	:
Luxembourg	10.8	12.1	9.0	:	9.0	9.0
Hungary	10.6	10.6	10.6	10.9	13.2	12.3
Malta	18.4	10.6	10.0	7.1	10.1	15.3
Netherlands	16.0	15.8	:	:	15.7	15.8
Austria	14.4	12.9	10.0	9.9	10.2	10.5
Poland	11.9	10.5	12.6	12.9	13.5	12.2
Portugal	11.3	11.3	8.9	8.1	8.3	7.3
Romania	17.8	16.3	13.7	12.5	15.8	14.8
Slovenia	12.8	15.8	13.0	8.9	14.6	13.5
Slovakia	19.4	18.6	13.9	14.5	14.0	15.1
Finland	16.6	14.4	9.8	10.6	15.9	15.9
Sweden	12.3	12.2	12.1	11.4	14.1	14.7
United Kingdom	20.0	20.2	17.4	15.0	20.3	12.4
Iceland	11.3	10.0	:	:	10.7	10.6
Liechtenstein	11.3	9.1	:	8.6	:	8.6
Norway	11.7	10.8	10.4	10.1	9.2	9.9
Croatia	18.0	16.6	12.6	12.1	11.7	11.3
FYR of Macedonia	20.3	17.4	15.8	12.8	18.1	15.8
Turkey	25.9	24.4	:	:	18.0	17.0
Japan	19.9	18.8	15.7	14.7	13.5	12.3
United States	15.5	14.3	15.5	14.8	15.6	15.6

⁽¹⁾ Refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/educ_esms.htm)

⁽²⁾ 2007 instead of 2008.

Source: Eurostat ([tps00054](#) and [educ_iste](#))



Table 4.3: Youth education attainment level and early leavers from education and training ⁽¹⁾
(%)

	Youth education attainment level				Early leavers from education & training			
	Total		Male	Female	Total		Male	Female
	2004	2009	2009	2009	2004	2009	2009	2009
EU-27	77.1	78.6	75.9	81.4	16.1	14.4	16.3	12.5
Euro area (EA-16)	74.0	75.6	72.3	79.0	18.0	15.9	18.3	13.5
Belgium	81.8	83.3	80.9	85.8	13.1	11.1	12.8	9.3
Bulgaria	76.1	83.7	84.8	82.5	21.4	14.7	13.7	15.8
Czech Republic	91.4	91.9	91.6	92.3	6.3	5.4	5.5	5.2
Denmark ⁽²⁾	76.2	70.1	62.2	78.4	8.8	10.6	13.2	7.7
Germany ⁽²⁾	72.8	73.7	71.7	75.8	12.1	11.1	11.5	10.7
Estonia ⁽³⁾	80.3	82.3	78.2	86.4	13.1	13.9	18.4	9.3
Ireland	85.3	87.0	83.4	90.5	13.1	11.3	14.4	8.2
Greece	83.0	82.2	77.8	86.9	14.7	14.5	18.3	10.6
Spain ⁽⁴⁾	61.2	59.9	53.1	67.1	32.0	31.2	37.4	24.7
France	81.8	83.6	81.3	85.9	12.8	12.3	14.3	10.3
Italy	73.4	76.3	72.8	79.9	22.3	19.2	22.0	16.3
Cyprus ⁽⁴⁾	77.6	87.4	84.2	90.2	20.6	11.7	15.2	8.8
Latvia	79.5	80.5	76.2	84.8	14.7	13.9	17.5	10.4
Lithuania ⁽³⁾	85.0	86.9	83.0	91.0	10.5	8.7	11.5	5.7
Luxembourg ^{(2) (5)}	72.5	76.8	76.1	77.6	12.7	7.7	8.9	6.6
Hungary	83.5	84.0	82.1	85.8	12.6	11.2	12.0	10.4
Malta	51.0	52.1	48.2	56.7	42.1	36.8	39.7	33.6
Netherlands	75.0	76.6	72.1	81.2	14.1	10.9	13.1	8.6
Austria	85.8	86.0	85.8	86.1	9.5	8.7	8.5	8.9
Poland	90.9	91.3	89.3	93.2	5.6	5.3	6.6	3.9
Portugal	49.6	55.5	50.0	61.3	39.4	31.2	36.1	26.1
Romania	75.3	78.3	77.8	78.9	22.4	16.6	16.1	17.2
Slovenia ⁽⁶⁾	90.5	89.4	86.2	93.1	4.3	5.3	7.2	3.2
Slovakia	91.7	93.3	92.6	94.0	6.8	4.9	5.7	4.1
Finland	84.5	85.1	84.4	85.9	10.0	9.9	10.7	9.0
Sweden	86.0	86.4	84.9	87.9	9.2	10.7	11.9	9.5
United Kingdom ⁽⁴⁾	77.0	79.3	77.4	81.3	12.1	15.7	17.0	14.5
Iceland	51.7	53.6	48.9	58.5	24.9	21.4	25.2	17.5
Norway ⁽²⁾	95.1	69.7	64.9	74.6	4.7	17.6	21.8	13.4
Switzerland	78.7	80.2	79.4	80.9	9.5	9.2	9.1	9.3
Croatia ⁽⁶⁾	93.5	95.1	94.6	95.8	5.4	3.9	4.2	3.7
FYR of Macedonia	:	81.9	84.3	79.5	:	16.2	14.1	18.5
Turkey	42.0	50.0	57.1	44.0	54.5	44.3	37.9	50.2

⁽¹⁾ Refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/lfsi_edu_a_esms.htm); early leavers from education and training: based on annual averages of quarterly data.

⁽²⁾ Break in series between 2004 and 2009.

⁽³⁾ Female early leavers from education and training: unreliable or uncertain data.

⁽⁴⁾ Early leavers from education and training: break in series between 2004 and 2009.

⁽⁵⁾ Male and female early leavers from education and training: unreliable or uncertain data.

⁽⁶⁾ Early leavers from education and training: unreliable or uncertain data.

Source: Eurostat (tsiir110 and tsisc060)



4.2 Foreign language learning

Currently 23 official languages are recognised within the European Union (EU), in addition to which there are regional, minority languages, and languages spoken by migrant populations.

School is the main opportunity for the vast majority of people to learn these languages – although linguistic diversity is actively encouraged within schools, universities and adult education centres, as well as the workplace. This subchapter presents statistics on language learning at primary and secondary schools in the EU Member States.

Main statistical findings

Primary education

Within primary education, a clear majority of pupils (choose to) study English. Indeed, learning English is mandatory in several countries within secondary education institutions, and so a number of Member States have close to 100 % of pupils learning this language already in primary education, as shown in Figure 4.4. The highest shares of primary education pupils studying English were recorded in Malta (where English is a second official language), Italy, Austria, Greece and Spain, where over nine out of every ten children were studying English. The relative importance of English as a foreign language may be further magnified because pupils tend to receive more instruction in their first foreign language than

they do for any subsequent languages they (choose to) study.

The central and eastern European Member States that joined the EU in 2004 and 2007 are in a particular position with regard to language teaching, as learning Russian was compulsory for many pupils in the past. This situation has changed rapidly and these days most pupils have more choice concerning the language(s) they wish to study, for example, in most countries there has also been a marked increase in the proportion of pupils learning English, often above 40 % of all students and in Bulgaria, Estonia and Lithuania over 60 %. Luxembourg is also of particular interest, insofar as there are three official languages, with most pupils receiving instruction in Luxembourgish, German and French at primary level; English is introduced at secondary school.

Secondary education

Turning to language learning in upper secondary education (as shown in Table 4.4), some 83.5 % of all EU-27 students at ISCED level 3 were studying English as a foreign language in 2007, compared with around one fifth studying French (21.8 %) or German (22.5 %).

Luxembourg and the Netherlands stood out as the countries with the highest proportion of secondary education students (at ISCED levels 2 or 3) learning three or more languages in 2007; note this indicator includes all foreign languages, not just German, English and French.



Data sources and availability

Data on the number of pupils studying foreign languages are related to the corresponding numbers of students enrolled; mentally handicapped students enrolled in special schools are excluded.

The average number of foreign languages learned per pupil is collected for different ISCED levels. The data refer to all pupils, even if teaching languages does not start in the first years of instruction for the particular ISCED level considered. This indicator is defined as the sum of language students divided by the total number of students enrolled in the educational level considered. Each student studying a foreign language is counted once for each language he or she is studying, in other words students studying more than one language are counted as many times as the number of languages studied. The educational curriculum drawn up in each country defines the languages, which are to be considered as foreign languages in that country and this definition is applied in the data collection. Regional languages are included, if they are considered as alternatives to foreign languages by the curriculum. Only foreign languages studied as compulsory subjects or as compulsory curriculum options are included. The study of languages when the subject is offered in addition to the minimum curriculum is not included. Also data on non-nationals studying their native language in special classes or those studying the language of the host country are excluded.

Context

For several decades it has been mandatory for most European children to learn

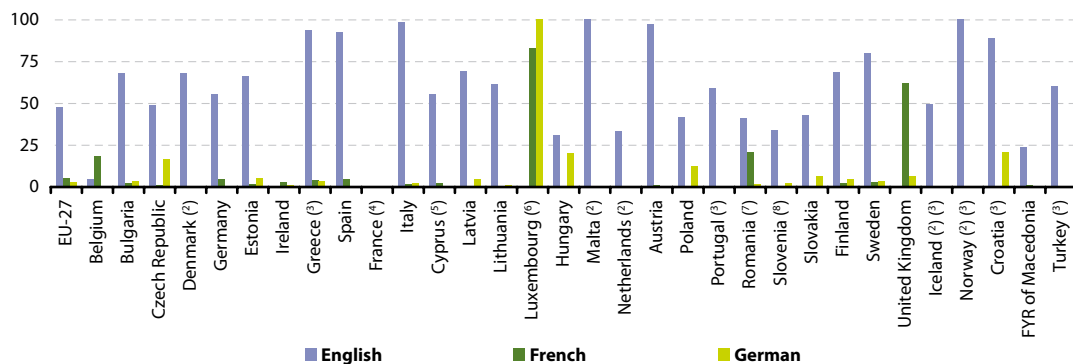
at least one foreign language during their compulsory education, with the time devoted to foreign language instruction generally increasing in recent years. In 2002, the Barcelona European Council recommended that at least two foreign languages should be taught to all pupils from a very early age. This recommendation has been implemented to varying degrees, usually for compulsory secondary education, either by making it mandatory to teach a second language, or ensuring that pupils have the possibility to study a second foreign language as part of their curriculum. In September 2008 the European Commission adopted a Communication titled 'Multilingualism: an asset for Europe and a shared commitment' (COM(2008) 566 final), which was followed in November 2008 by a Council Resolution on a European strategy for multilingualism (2008/C 320/01). The Communication addressed languages in the wider context of social cohesion and prosperity and focused on actions to encourage and assist citizens in acquiring language skills. It explored issues such as:

- the role languages play in developing mutual understanding in a multicultural society;
- how language skills improve employability and ensure a competitive edge for European businesses;
- what to do to encourage European citizens to speak two languages in addition to their mother tongue;
- how the media and new technologies can serve as a bridge between speakers of different languages.



Figure 4.4: Proportion of pupils learning foreign languages in primary education, by language, 2007 ⁽¹⁾

(%)



⁽¹⁾ Refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/educ_esms.htm).

⁽²⁾ French and German, not available.

⁽³⁾ 2006.

⁽⁴⁾ Not available.

⁽⁵⁾ German, not available.

⁽⁶⁾ English, not available.

⁽⁷⁾ German, 2006.

⁽⁸⁾ French, not available.

Source: Eurostat ([educ_ilang](#)), Unesco, OECD



Table 4.4: Foreign languages learnt per pupil in secondary education ⁽¹⁾
(%)

	Proportion of students learning 3 or more languages (at ISCED level 2 or 3)		Upper secondary education (ISCED 3)					
			Pupils learning English in general programmes		Pupils learning French in general programmes		Pupils learning German in general programmes	
	2002	2007	2002	2007	2002	2007	2002	2007
EU-27	4.7	2.8	69.7	83.5	17.7	21.8	17.7	22.5
Belgium	15.2	14.5	94.1	94.1	47.7	48.1	30.1	28.5
Bulgaria	0.7	0.5	80.8	86.2	18.7	15.0	39.3	38.5
Czech Republic	:	1.0	98.9	100.0	17.3	24.5	73.5	65.8
Denmark	:	2.3	:	91.8	:	10.7	:	35.6
Germany	:	:	90.9	91.0	27.1	27.4	-	-
Estonia	28.6	18.9	91.2	95.0	4.7	6.7	45.6	41.6
Ireland	0.3	0.3	-	-	65.7	59.6	18.7	18.3
Greece ⁽²⁾	-	:	95.2	94.0	10.3	8.6	2.1	2.9
Spain	0.0	0.2	95.9	95.3	27.7	27.7	1.1	1.1
France	3.4	:	99.4	99.4	-	-	30.5	21.8
Italy	3.1	2.1	85.9	95.3	27.2	20.5	8.2	7.2
Cyprus	:	:	100.0	78.5	60.4	32.2	1.0	2.4
Latvia	3.8	4.6	89.3	96.0	3.1	4.1	48.1	32.2
Lithuania	1.5	0.8	76.5	85.1	6.8	4.9	35.1	25.4
Luxembourg	60.7	61.9	96.3	96.5	96.3	96.5	96.3	96.5
Hungary	:	0.2	57.6	76.4	6.3	6.5	49.3	50.1
Malta	13.4	20.0	78.5	70.2	8.3	9.6	0.8	2.2
Netherlands ⁽³⁾	20.4	56.7	99.9	100.0	22.7	70.3	23.3	86.3
Austria	2.1	2.4	96.9	96.9	42.8	54.1	-	-
Poland	:	0.7	90.6	91.2	14.1	9.8	61.5	62.7
Portugal ⁽²⁾	:	:	:	50.7	:	15.1	:	1.6
Romania ⁽⁴⁾	:	1.1	87.8	95.9	85.1	83.0	10.7	11.6
Slovenia	2.2	3.2	98.2	98.3	9.1	10.8	83.0	76.0
Slovakia	0.1	0.7	96.0	97.9	12.4	16.0	78.2	71.2
Finland	44.4	34.6	99.7	99.3	21.9	19.3	41.5	33.2
Sweden	4.5	3.3	99.8	99.9	25.8	21.1	48.9	29.6
United Kingdom	:	:	-	-	:	32.0	:	11.7
Iceland ⁽⁵⁾	15.8	19.1	66.2	76.1	14.7	17.1	32.1	30.7
Norway ⁽²⁾	:	:	:	100.0	:	20.3	:	31.3
Croatia ⁽²⁾	:	1.2	:	98.3	:	3.4	:	65.6
Turkey ⁽²⁾	:	:	:	67.3	:	0.7	:	6.5

⁽¹⁾ Refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/educ_esms.htm).

⁽²⁾ 2006 instead of 2007.

⁽³⁾ Proportion of students learning three or more languages: break in series, 2004.

⁽⁴⁾ Pupils learning German: 2006 instead of 2007.

⁽⁵⁾ Pupils learning English, French or German: 2006 instead of 2007.

Source: Eurostat (educ_thfrlan, tps00057, tps00058 and tps00059), Unesco, OECD



4.3 Educational expenditure

Expenditure on education may help foster economic growth, enhance productivity, contribute to people's personal and social development, and promote the reduction of social inequalities. The proportion of total financial resources devoted to education is one of the key choices made by governments in each country of the European Union (EU). In a similar vein, enterprises, students and their families also make decisions on the financial resources that they will set aside for education.

Main statistical findings

Public expenditure on education in the EU-27 in 2007 was equivalent to 5.0 % of GDP, while the expenditure of both public and private sources of funds on educational institutions amounted to 5.7 % of GDP (see Table 4.5).

The highest public spending on education was observed in Denmark (7.8 % of GDP), while Cyprus (6.9 %), Sweden (6.7 %) and Malta (6.3 %) also recorded relatively high proportions. Most Member States reported that public expenditure on education accounted for between 4 % and 6 % of their GDP, although this share was lower in Slovakia. It should also be noted that GDP growth can mask significant increases that have been made in terms of education spending over the last decade within some Member States. Furthermore, declining birth rates in many countries will result in reduced school age populations, which will have

an effect on ratios such as the average expenditure per pupil (given that expenditure is held constant).

Annual expenditure on public and private educational institutions shows that an average of PPS 6 251 was spent per pupil/student in 2007 in the EU-27; this ratio was approximately six times higher in Austria than in Romania (2005).

Data sources and availability

Indicators on education expenditure cover schools, universities and other public and private institutions involved in delivering or supporting educational services. Expenditure on institutions is not limited to that made on instructional services, but also includes public and private expenditure on ancillary services for students and families, where these services are provided through educational institutions. At the tertiary level, spending on research and development can also be significant and is included, to the extent that the research is performed by educational institutions.

Total public expenditure on education includes direct public funding for educational institutions and transfers to households and enterprises. Generally, the public sector funds education either by bearing directly the current and capital expenses of educational institutions (direct expenditure for educational institutions) or by supporting students and their families with scholarships and public loans as well as by



transferring public subsidies for educational activities to private enterprises or non-profit organisations (transfers to private households and enterprises). Both types of transactions together are reported as total public expenditure on education.

Expenditure on educational institutions from private sources comprises: school fees; materials (such as textbooks and teaching equipment); transport to school (if organised by the school); meals (if provided by the school); boarding fees, and; expenditure by employers on initial vocational training.

Expenditure per pupil/student in public and private institutions measures how much central, regional and local government, private households, religious institutions and enterprises spend per pupil/student. It includes expenditure for personnel, as well as other current and capital expenditure. Public schools/institutions are defined as those which are directly or indirectly administered by a public education authority. Private schools/institutions are directly or indirectly administered by a non-governmental organisation (such as a church, trade union, a private business concern or another body).

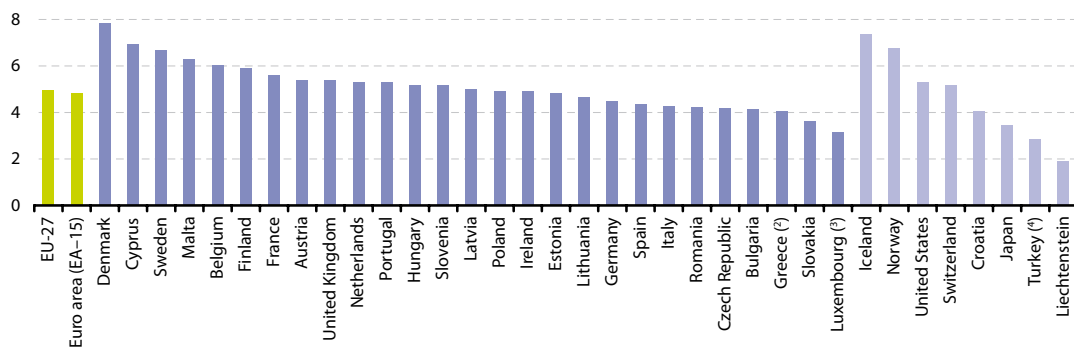
Context

Education accounts for a significant proportion of public expenditure in all of the EU Member States – the most important budget item being expenditure on staff. The cost of teaching increases significantly as a child moves through the education system, with expenditure per pupil/student considerably higher in universities than in primary schools. Although tertiary education costs more per head, the highest proportion of total education spending is devoted to secondary education systems, as these teach a larger share of the total number of pupils/students.

There is an ongoing debate in many EU Member States as to how to increase or maintain funding for education, improve efficiency and promote equity – a challenge that has become harder in the context of a very severe economic, social and financial crisis and increased public debt. Possible approaches include tuition fees, administrative or examination charges, the introduction of grants or income-contingent loans to try to stimulate enrolment rates in higher education, in particular among the less well-off members of society. Another fundraising source is partnerships between business and higher educational establishments.



Figure 4.5: Public expenditure on education, 2007⁽¹⁾
(% of GDP)



⁽¹⁾ Refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/tsiir010_esms.htm).

⁽²⁾ 2005.

⁽³⁾ Excludes tertiary education.

⁽⁴⁾ 2006.

Source: Eurostat (tsiir010)

**Table 4.5:** Expenditure on educational institutions ⁽¹⁾

	Public expenditure (% of GDP)		Private expenditure (% of GDP)		Expenditure on public and private educational institutions per pupil/student (PPS for full-time equivalents)	
	2002	2007	2002	2007	2002	2007
EU-27	5.10	4.96	0.60	0.72	5 307	6 251
Euro area (EA-15)	5.00	4.83	0.58	0.56	5 798	6 709
Belgium	6.10	6.02	0.36	0.34	6 574	7 264
Bulgaria	4.03	4.13	0.69	0.62	1 575	2 290
Czech Republic	4.32	4.20	0.24	0.51	2 947	4 452
Denmark	8.44	7.83	0.28	0.53	7 379	8 595
Germany	4.70	4.50	0.87	0.69	6 058	6 752
Estonia	5.48	4.85	:	0.32	:	3 675
Ireland	4.29	4.90	0.28	0.24	4 940	7 172
Greece ⁽²⁾	3.57	:	0.17	0.26	3 549	4 485
Spain	4.25	4.35	0.54	0.61	4 850	6 773
France	5.88	5.59	0.56	0.53	6 161	6 928
Italy	4.62	4.29	0.35	0.40	5 736	6 205
Cyprus	6.55	6.93	1.40	1.27	5 495	7 708
Latvia	5.71	5.00	0.82	0.56	2 267	3 666
Lithuania	5.84	4.67	:	0.45	2 012	3 174
Luxembourg ⁽³⁾	3.79	3.15	:	:	:	:
Hungary ⁽⁴⁾	5.38	5.20	0.55	0.54	:	3 995
Malta ⁽⁵⁾	4.38	6.31	0.61	0.38	3 448	6 437
Netherlands	5.15	5.32	0.89	0.90	6 780	7 891
Austria	5.72	5.40	0.38	0.48	7 692	8 695
Poland	5.41	4.91	0.64	0.50	2 507	3 226
Portugal	5.54	5.30	0.09	0.46	4 191	5 125
Romania ⁽⁶⁾	3.51	4.25	0.16	0.50	:	1 438
Slovenia	5.78	5.19	0.83	0.73	4 930	6 055
Slovakia	4.30	3.62	0.20	0.53	2 032	3 122
Finland	6.21	5.91	0.13	0.14	5 707	6 682
Sweden	7.43	6.69	0.17	0.16	6 743	7 907
United Kingdom	5.11	5.39	0.89	1.75	5 708	7 972
Iceland	6.79	7.36	0.57	0.77	13 162	8 172
Liechtenstein	2.96	1.92	:	:	8 470	7 788
Norway	7.58	6.76	0.26	:	8 555	9 708
Switzerland	5.75	5.18	0.61	0.55	:	:
Croatia	3.72	4.07	0.13	0.35	:	3 742
FYR of Macedonia	3.35	:	:	:	:	:
Turkey ⁽⁷⁾	2.82	2.86	0.33	:	:	:
Japan	3.65	3.45	1.21	1.64	6 446	7 752
United States	5.58	5.29	1.90	2.58	9 335	11 785

⁽¹⁾ Refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/educ_esms.htm).

⁽²⁾ 2005 instead of 2007.

⁽³⁾ Excludes tertiary education.

⁽⁴⁾ Private expenditure and expenditure per pupil/student, 2006 instead of 2007.

⁽⁵⁾ Private expenditure and expenditure per pupil/student, break in series.

⁽⁶⁾ Expenditure per pupil/student, 2005 instead of 2007

⁽⁷⁾ 2006 instead of 2007.

Source: Eurostat ([educ_figdp](#), [tps00068](#) and [tps00067](#)), UNESCO, OECD



4.4 Tertiary education

This subchapter presents statistics on tertiary education in the European Union (EU). Tertiary education – provided by universities and other higher education institutions – is the level of education following secondary schooling. The EU-27 has around 4 000 higher education (undergraduate and postgraduate) institutions, with over 19 million students. Some European universities are among the most prestigious in the world. Higher education plays an essential role in society, creating new knowledge, transferring knowledge to students and fostering innovation.

The decade since the introduction of the Bologna process (see the introduction for the chapter on education and training) has brought about a major expansion in higher education systems, accompanied by significant reforms in degree structures and quality assurance systems. However, the financial and economic crisis has affected higher education in different ways, with some countries investing more and others making radical cutbacks in spending.

Main statistical findings

There were 19.0 million students active within tertiary education in the EU-27 in 2008 (see Table 4.6). Five Member States reported more than 2 million tertiary students in 2007, namely the United Kingdom, Germany, Poland, France and Italy; together with Spain these six countries accounted for two thirds of all EU-27 students in tertiary education. Across the EU more than one third (34.4 %) of stu-

dents in tertiary education were studying social sciences, business or law, with more female than male students in this field of education, as shown in Figure 4.6. The second largest number of students by field of education was in engineering, manufacturing and construction with 14.1 % of the total, with male students accounting for three quarters of the students in this field.

In 2008, the median age of students in tertiary education ranged from 20.6 in France to 22.6 in Latvia, with the Nordic countries of Denmark, Sweden and Finland, as well as Germany and Austria above this range (see Figure 4.7). The age of students in tertiary education can be influenced by a number of factors: whether students postpone starting tertiary education either by choice (for example, by taking a break or a gap year between secondary and tertiary education) or obligation (for example, for military service); the length of the tertiary education courses studied; the extent to which mature students return to tertiary education later in life.

The strategic framework for European cooperation in education and training adopted in May 2009 sets a number of benchmarks, including one for tertiary education, namely that by 2020 the share of 30 to 34-year-olds with tertiary educational attainment should be at least 40 %. Just under one third (32.3 %) of the population aged 30 to 34 in the EU-27 had a tertiary education in 2009, rising to over one third (35.7 %) among women, and falling to 28.9 % among men. In Ireland and Denmark, the overall proportion of 30



to 34-year-olds with tertiary educational attainment was approaching 50 % and for women went beyond this threshold (see Figure 4.8); this was also the case in Norway. In contrast, less than 20 % of the population in this age range had a tertiary education in Romania, the Czech Republic, Slovakia and Italy.

Around 4.2 million students graduated from tertiary education establishments in the EU in 2008. An analysis of the number of graduates by field of education shows that 35.9 % had studied social sciences, business and law; this share was higher than the equivalent share (34.4 %) of tertiary education students still in the process of studying within this field, suggesting that less students had started this type of study in recent years, or that drop-out rates were higher in other fields. A similar situation was observed for engineering, manufacturing and construction, which made up 14.4 % of graduates from 14.1 % of the tertiary student population, as well as in the smaller field of services. The reverse situation was observed for the other fields of education shown in Figures 4.6 and 4.9, most notably for agriculture and veterinary studies, where the proportion of graduates (1.7 %) was lower than corresponding share of the current student population (1.9 %).

Within the EU, female graduates outnumbered male graduates by a ratio of approximately three to two; this ratio reached three to one in health and welfare fields of education. Male graduates outnumbered female graduates slightly in agriculture and veterinary fields, more so in science, mathematics and computing fields, and by close to three to one in en-

gineering, manufacturing and construction fields.

Data sources and availability

The international standard classification of education (ISCED) is used to define levels of education: tertiary education includes both programmes which are largely theoretically based and designed to provide qualifications for entry to advanced research programmes and professions with high skills requirements, as well as programmes which are classified at the same level of competencies but are more occupationally oriented and lead to direct labour market access.

ISCED also classifies the fields of education, with 25 fields of education in all at the 2-digit level, which can be further refined into a 3-digit level. At the highest 1-digit level the following nine broad groups of fields of education are distinguished: general programmes; education; humanities and arts; social sciences, business and law; science; engineering, manufacturing and construction; agriculture; health and welfare; services.

Context

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. The modernisation agenda of universities is supported through the implementation of the 7th EU framework programme for research and the



competitiveness and innovation programme. Furthermore, to establish synergies between the Bologna process and the Copenhagen process (for enhanced European cooperation in vocational education and training), the European Commission and Member States have established a European qualifications framework for lifelong learning (EQF) – see Subchapter 4.5 on lifelong learning statistics.

At the end of 2007, agreement was reached on establishing a European institute of innovation and technology (EIT). Its aim is to bring together higher education, research and industry through the creation of ‘knowledge communities’, while it should contribute towards Europe’s capacity for innovation.

The integrated economic and employment guidelines were revised most recently as part of the Europe 2020 strategy for smart, sustainable and inclusive growth. Guideline 9 concerns improving the performance of education and training systems at all levels and increasing participation in tertiary education.

The Erasmus programme is one of the most well-known European programmes. Around 4 000 higher education institutions take part in it and some 2.2 million students have already participated in exchanges since it started in 1987. Erasmus became part of the EU’s lifelong learning programme in 2007 and was expanded to cover student placements in enterprises, university staff training and teaching for enterprise staff. The programme seeks to expand its mobility actions in the coming years, with a target of 3 million Erasmus students by 2012.

Some of the most recent policy initiatives in this area include efforts to develop links between universities and businesses. In April 2009, the European Commission presented a Communication titled ‘A new partnership for the modernisation of universities: the EU forum for university-business dialogue’. The Communication includes proposals to establish a university-business forum as a European platform for dialogue, to enable and stimulate the exchange of good practice, discuss common problems, and work together on possible solutions.

**Table 4.6:** Students in tertiary education, 2008 ⁽¹⁾

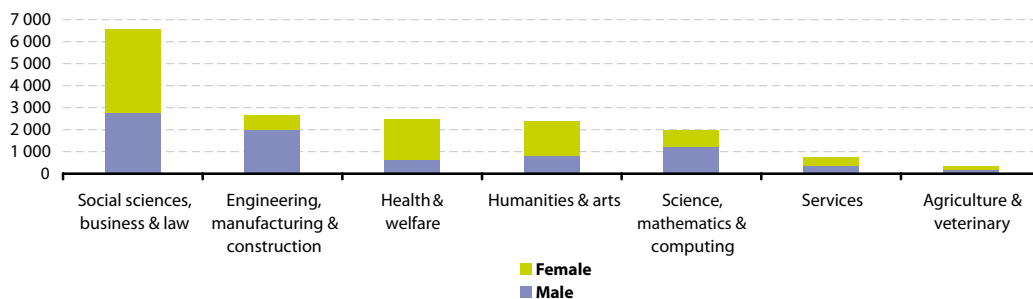
	Total number of students in tertiary education (1 000)	of which, studying (%)							
		Humanities & arts	Social sciences, business & law	Science, math. & computing	Engin., manuf. & construction	Agricul. & veterinary	Health & welfare	Services	
EU-27	19 040	12.6	34.4	10.3	14.1	1.9	13.0	4.0	
Belgium	402	10.5	29.7	6.6	9.4	2.5	19.7	1.6	
Bulgaria	265	7.8	45.0	5.0	19.5	2.4	6.5	7.9	
Czech Republic	393	8.7	31.2	10.8	15.7	3.6	10.3	4.9	
Denmark	231	15.3	30.4	8.2	9.8	1.5	21.5	2.2	
Germany	2 245	15.2	27.5	15.2	15.8	1.5	14.4	3.0	
Estonia	68	12.1	40.2	9.6	13.0	2.3	8.2	7.9	
Ireland	179	15.7	29.8	12.5	12.8	1.3	15.6	5.2	
Greece	638	14.1	31.4	13.6	17.0	5.8	9.2	3.6	
Spain	1 781	10.4	31.7	9.9	17.7	1.9	12.3	5.8	
France	2 165	15.4	36.1	12.3	13.0	1.2	15.6	3.3	
Italy	2 014	13.4	35.1	7.6	15.3	2.1	13.1	2.8	
Cyprus	26	10.4	49.5	9.8	7.7	0.1	6.5	7.1	
Latvia	128	7.5	53.7	4.8	11.0	1.0	6.9	5.9	
Lithuania	205	7.1	44.6	5.5	18.0	2.1	8.6	3.1	
Luxembourg	3	12.0	37.1	16.1	8.5	0.0	1.1	1.6	
Hungary	414	9.1	40.9	6.9	12.5	2.5	8.9	9.1	
Malta	10	17.9	34.9	9.4	7.8	0.5	17.5	1.4	
Netherlands	602	8.5	37.3	6.2	8.1	1.1	16.9	6.2	
Austria	285	14.4	36.2	11.6	13.9	1.3	9.6	2.1	
Poland	2 166	10.1	40.3	8.9	12.4	2.1	6.6	5.9	
Portugal	377	8.7	31.9	7.5	22.3	2.1	16.6	5.8	
Romania	1 057	8.5	56.0	5.6	16.5	2.2	6.4	3.2	
Slovenia	115	8.1	39.3	5.9	18.2	3.3	7.6	9.6	
Slovakia	230	6.5	29.3	8.4	15.0	2.6	17.6	5.6	
Finland	310	14.6	22.9	10.9	24.9	2.3	14.2	5.0	
Sweden	407	13.1	26.1	8.9	15.8	1.0	18.2	2.1	
United Kingdom	2 330	16.8	26.5	12.9	8.2	1.0	18.2	1.6	
Iceland	17	14.3	37.8	7.6	8.6	0.7	12.6	1.5	
Liechtenstein	1	1.3	74.3	0.0	20.4	0.0	4.1	0.0	
Norway	213	10.7	31.6	8.5	7.5	0.7	20.0	4.3	
Switzerland	225	12.3	36.2	9.9	12.7	1.0	13.7	3.7	
Croatia	143	9.5	41.9	7.9	15.4	3.8	7.1	9.9	
FYR of Macedonia	66	12.1	39.5	10.7	12.7	2.8	9.5	4.4	
Turkey	2 533	6.6	48.8	7.6	13.0	4.1	5.6	3.6	
Japan	3 939	15.9	29.2	2.9	15.7	2.3	12.9	5.7	
United States	18 248	15.8	29.1	9.0	7.7	0.7	15.8	6.6	

⁽¹⁾ Refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/educ_esms.htm).

Source: Eurostat (tps00062 and educ_enr15)



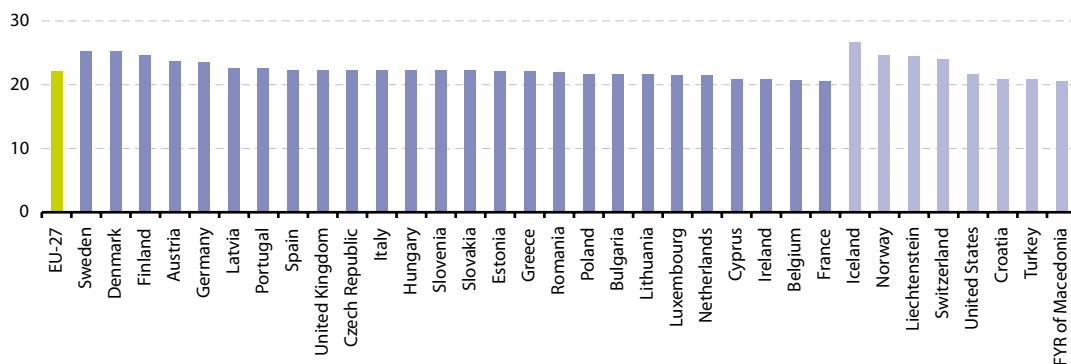
Figure 4.6: Students in tertiary education, by field of education and gender, EU-27, 2008 ⁽¹⁾
(1 000)



⁽¹⁾ Refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/educ_esms.htm).

Source: Eurostat ([educ_enr15](#))

Figure 4.7: Median age in tertiary education, 2008 ⁽¹⁾
(years)



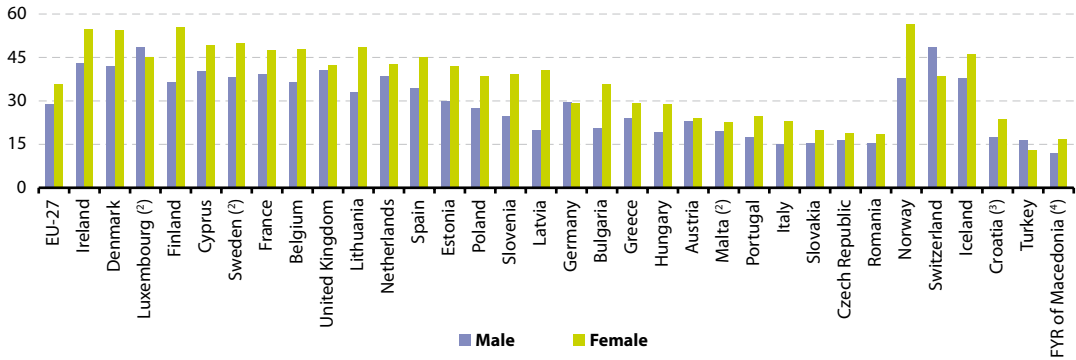
⁽¹⁾ Malta, not available; refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/educ_esms.htm).

Source: Eurostat ([tps00061](#))



Figure 4.8: Proportion of the population aged 30 to 34 having a tertiary educational attainment, 2009 ⁽¹⁾

(%)



⁽¹⁾ Refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/educ_esms.htm).

⁽²⁾ Provisional.

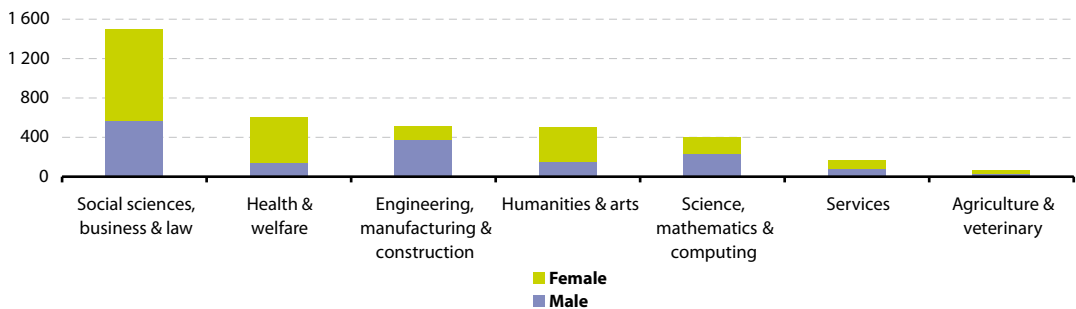
⁽³⁾ Unreliable or uncertain data.

⁽⁴⁾ Male proportion: unreliable or uncertain data.

Source: Eurostat (t2020_41)

Figure 4.9: Graduates from tertiary education, by field of education and gender, EU-27, 2008 ⁽¹⁾

(1 000)



⁽¹⁾ Refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/educ_esms.htm).

Source: Eurostat (educ_grad5)

**Table 4.7:** Graduates from tertiary education, by field of education, 2008 ⁽¹⁾

	Total number of graduates from tertiary education (1 000)	of which, studying (%)							
		Humanities & arts	Teaching & training	Social sciences, business & law	Science, math. & computing	Engin., manuf. & construction	Agricul. & veterinary	Health & welfare	Services
EU-27	4 182	12.1	9.8	35.9	9.7	12.2	1.7	14.4	4.1
Belgium	97	11.2	13.0	30.6	5.6	10.2	2.8	20.6	1.4
Bulgaria	55	6.0	6.3	52.7	3.6	14.3	1.8	6.7	8.6
Czech Republic	89	7.2	14.7	31.2	9.4	16.0	3.7	9.0	4.7
Denmark	50	13.0	7.9	31.3	7.1	12.4	2.5	22.5	3.3
Germany	467	17.3	9.2	23.4	13.1	13.2	1.7	18.2	3.4
Estonia	11	11.0	8.3	38.0	10.1	10.5	2.4	10.2	9.6
Ireland	60	21.9	7.3	32.4	13.9	10.5	0.7	11.0	2.1
Greece	67	12.9	8.1	30.0	10.9	14.0	4.1	11.6	8.4
Spain	291	9.0	13.2	27.1	9.2	16.4	1.7	15.3	7.6
France	621	10.7	1.7	41.4	10.6	15.6	1.5	14.5	4.0
Italy	236	17.2	5.4	34.9	6.8	14.8	1.8	14.8	2.9
Cyprus	4	10.0	11.4	46.4	9.4	3.2	0.2	7.5	11.7
Latvia	24	7.1	10.3	55.0	5.1	7.6	0.7	7.9	6.0
Lithuania	43	6.6	13.9	42.6	5.5	15.5	2.0	10.3	3.6
Luxembourg	0	15.1	0.0	48.2	28.7	3.8	0.0	0.0	1.8
Hungary	63	8.4	17.6	41.0	5.9	7.6	2.1	10.4	8.5
Malta	3	16.1	11.4	43.8	8.2	4.6	0.1	14.0	1.7
Netherlands	124	8.7	15.0	37.2	6.3	7.7	1.4	18.1	5.2
Austria	44	9.1	10.6	34.7	10.8	17.8	2.4	11.2	3.7
Poland	558	8.3	17.7	42.3	7.6	8.4	1.8	8.5	5.3
Portugal	84	9.9	8.8	31.3	14.2	21.0	2.5	23.0	6.7
Romania	311	10.3	3.1	58.4	6.4	10.1	1.4	7.2	3.1
Slovenia	17	5.7	8.3	49.9	4.1	13.6	2.5	7.8	8.3
Slovakia	65	6.4	17.0	31.0	7.5	13.3	2.4	17.1	5.3
Finland	60	17.1	7.9	26.1	11.7	15.1	2.3	15.1	4.8
Sweden	60	6.0	18.6	24.6	7.2	17.2	1.2	25.3	2.9
United Kingdom	676	16.2	11.2	30.1	12.7	8.6	0.9	18.2	1.3
Iceland	4	10.7	22.8	37.3	6.5	7.0	0.4	13.7	1.6
Liechtenstein	0	0.0	0.0	78.0	0.0	22.0	0.0	0.0	0.0
Norway	35	8.7	18.0	29.0	7.5	7.7	0.9	23.6	4.5
Switzerland	80	8.2	10.4	38.3	8.7	11.8	1.8	13.8	6.5
Croatia	27	10.1	6.5	38.0	9.2	13.7	3.4	8.0	11.0
FYR of Macedonia	11	13.3	13.6	34.0	8.2	9.5	1.8	10.9	8.8
Turkey	445	6.1	15.1	40.5	8.2	13.7	5.2	5.8	5.3
Japan	1 034	14.9	7.1	26.5	3.0	17.7	2.3	13.1	9.5
United States	2 782	13.1	10.8	38.0	8.4	7.0	1.1	14.8	6.8

⁽¹⁾ Refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/educ_esms.htm).

Source: Eurostat (educ_grad5)



4.5 Lifelong learning

This subchapter provides an overview of lifelong learning statistics in the European Union (EU), on the basis of data collected by the labour force survey (LFS), supplemented by the adult education survey (AES).

Main statistical findings

The strategic framework for European cooperation in education and training adopted in May 2009 sets a number of benchmarks to be achieved by 2020, including one for lifelong learning, namely that an average of at least 15 % of adults aged 25 to 64 years old should participate in lifelong learning. In 2009, the proportion of persons aged 25 to 64 in the EU receiving some form of education or training in the four weeks preceding the labour force survey was 9.3 %; a share that was unchanged compared with the corresponding share for 2004 (see Table 4.8).

The proportion of the population who had participated in such lifelong learning activities was higher among women (10.2 % in 2009) than among men (8.5 %), and furthermore the share for women had increased compared with 2004. Denmark, Sweden, Finland and the United Kingdom stood out as they reported considerably higher proportions of their respective populations participating in lifelong learning, between one fifth and one third; in contrast, Bulgaria and Romania reported lifelong learning participation rates of less than 2 %.

In addition to the labour force survey, a pilot survey - the adult education survey

(AES) - was conducted on a voluntary basis between 2005 and 2008. According to this, a majority of participants took part in non-formal education and training, while most of the education and training undertaken was job-related. Indeed, the main reason given by respondents for their participation in non-formal education and training (see Table 4.9) was to do their job better/improve their career prospects, while getting knowledge or skills relating to interesting subjects and getting useful skills/knowledge for everyday life were also common reasons. The three most commonly cited obstacles to participation in education and training among those who wanted to participate but did not do so were family responsibilities (40.2 % of those not participating), conflict with work schedules (38.7 %) and cost (31.2 %) (see Table 4.10).

Employers were the most common providers of non-formal education and training activities, providing close to two fifths of such activities, as shown in Table 4.11. Employers provided more than two thirds of non-formal education and training in Bulgaria, and half of such activities in the United Kingdom. Among the less common providers used across the EU-27 as a whole, the importance of employers' organisations and chambers of commerce was particularly high in Hungary (32.8 %) and Slovenia (20.8 %), non-commercial institutions (such as libraries) were relatively frequent providers in Finland (29.5 %) and Cyprus (15.5 %), while trade unions provided a higher than average share of non-formal education and training in Hungary (13.1 %).



Data sources and availability

Lifelong learning encompasses all purposeful learning activity, whether formal, non-formal or informal, undertaken on an ongoing basis with the aim of improving knowledge, skills and competence. The intention or aim to learn is the critical point that distinguishes these activities from non-learning activities, such as cultural activities or sports activities. The information collected relates to all subjects whether they are relevant or not for the respondent's current or possible future job.

Within the domain of lifelong learning statistics, formal education corresponds to education and training in the regular system of schools, universities, colleges and other formal educational institutions that normally constitute a continuous 'ladder' of full-time education for children and young people (up to 20 or 25 years of age). Non-formal education is defined as any organised and sustained educational activities that do not correspond to the definition of formal education. Non-formal education may or may not take place in educational institutions and cater to persons of all ages. It may cover educational programmes to impart adult literacy, basic education for out-of-school children, life skills, work skills, and general culture. Note that the statistics presented do not, therefore, cover informal learning, which corresponds to self-learning (through the use of printed material, computer-based learning/training, (Internet) web-based education, visiting libraries, etc).

The target population for lifelong learning statistics refers to all persons in private households aged between 25 and

64 years. Data are collected through the EU's labour force survey (LFS). The denominator used for the ratios devised from LFS data consists of the total population of the same age group, excluding those who did not answer the question concerning participation in education and training.

Additional information is available from an adult education survey which was carried out by EU, EFTA and candidate countries. Surveys have been carried out between 2005 and 2008 as a pilot exercise with a standard questionnaire, covering participation in education and lifelong learning activities whether formal, non-formal or informal, and included job-related activities. The survey also collects information on learning activities, self-reported skills, as well as modules on social and cultural participation. Learning includes activities with the intention to improve an individual's knowledge, skills, and competences. Intentional learning (as opposed to random learning) is defined as a deliberate search for knowledge, skills, competences, or attitudes of lasting value. Organised learning is defined as learning planned in a pattern or sequence with explicit or implicit aims.

Context

Lifelong learning can take place in a variety of environments, both inside and outside formal education and training systems. Lifelong learning implies investing in people and knowledge; promoting the acquisition of basic skills, including digital literacy and broadening opportunities for innovative, more



flexible forms of learning. The aim is to provide people of all ages with equal and open access to high-quality learning opportunities, and to a variety of learning experiences.

The integrated economic and employment guidelines were revised most recently as part of the Europe 2020 strategy for smart, sustainable and inclusive growth. Guideline 8 concerns developing a skilled workforce responding to labour market needs, and promoting job quality and lifelong learning.

The Copenhagen process, established in 2002, lays out the basis for cooperation in vocational education and training (VET), with 32 European countries involved. In June 2010, the European Commission presented a ten year vision for the future of vocational education and training in a Communication titled 'A new impetus for European cooperation in vocational education and training to support the Europe 2020 strategy' (COM(2010) 296 final).

There are a number of initiatives under development to enhance the transparency, recognition and quality of competences and qualifications, facilitating the mobility of learners and workers. These include the European Qualifications Framework (EQF), Europass, the European Credit System for VET (ECVET), and the European Quality Assurance Reference Framework for VET (EQAVET). The launch of EQF aims to

help employers and individuals compare qualifications across the EU's diverse education and training systems: it encourages countries to relate their national qualifications systems to the EQF so that all new qualifications issued from 2012 carry a reference to an appropriate EQF level. The EQF also represents a shift in European education as it is based on an approach which takes into account learning outcomes rather than the resources which are put into learning. In other words, it is a qualifications framework based on what learners are actually able to do at the end of a course of education, rather than where the learning took place and how long it took.

The Leonardo da Vinci programme in the field of vocational education and training is designed to encourage projects which give individuals the chance to improve their competences, knowledge and skills through a period spent abroad, as well as to encourage Europe-wide cooperation between training organisations.

The Grundtvig programme was launched in 2000 and now forms part of the lifelong learning programme. It aims to provide adults with ways of improving their knowledge and skills. It not only covers learners in adult education, but also the teachers, trainers, education staff and facilities that provide these services.

**Table 4.8:** Lifelong learning ⁽¹⁾

(% of the population aged 25 to 64 participating in education and training)

	Total		Male		Female	
	2004	2009	2004	2009	2004	2009
EU-27	9.3	9.3	8.7	8.5	10.0	10.2
Euro area (EA-16)	7.3	8.1	7.2	7.7	7.5	8.5
Belgium	8.6	6.8	8.7	6.4	8.5	7.2
Bulgaria	1.3	1.4	1.2	1.3	1.3	1.5
Czech Republic	5.8	6.8	5.5	6.5	6.0	7.0
Denmark	25.6	31.6	22.1	25.6	29.1	37.6
Germany	7.4	7.8	7.8	7.8	7.0	7.7
Estonia	6.4	10.5	5.1	7.6	7.5	13.2
Ireland	6.1	6.3	5.1	5.7	7.1	7.0
Greece	1.8	3.3	1.8	3.2	1.8	3.3
Spain ⁽²⁾	4.7	10.4	4.2	9.6	5.1	11.3
France	7.1	6.0	7.0	5.6	7.1	6.4
Italy	6.3	6.0	5.9	5.6	6.7	6.4
Cyprus ⁽²⁾	9.3	7.8	9.0	7.8	9.6	7.8
Latvia	8.4	5.3	5.7	3.6	10.8	6.9
Lithuania	5.9	4.5	4.2	3.6	7.4	5.4
Luxembourg ⁽²⁾	9.8	13.4	9.5	13.4	10.1	13.5
Hungary	4.0	2.7	3.4	2.5	4.6	3.0
Malta	4.3	5.8	4.8	5.6	3.8	6.0
Netherlands	16.4	17.0	16.1	16.5	16.8	17.5
Austria	11.6	13.8	10.9	12.8	12.2	14.7
Poland	5.0	4.7	4.3	4.3	5.7	5.1
Portugal	4.3	6.5	4.1	6.2	4.4	6.8
Romania	1.4	1.5	1.3	1.3	1.4	1.6
Slovenia	16.2	14.6	14.8	12.9	17.6	16.4
Slovakia	4.3	2.8	3.8	2.2	4.8	3.3
Finland	22.8	22.1	19.2	18.5	26.4	25.9
Sweden ⁽²⁾	:	22.2	:	16.1	:	28.5
United Kingdom ⁽²⁾	29.0	20.1	24.9	16.8	33.1	23.3
Iceland	24.2	25.1	19.6	20.4	28.9	30.0
Norway	17.4	18.1	16.3	16.8	18.6	19.5
Switzerland	28.6	24.0	29.7	22.8	27.4	25.2
Croatia ⁽³⁾	1.9	2.3	1.8	2.4	2.0	2.1
FYR of Macedonia	:	3.3	:	3.2	:	3.4
Turkey	1.1	2.3	1.5	2.4	0.8	2.1

⁽¹⁾ Refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/lfsi_edu_a_esms.htm).⁽²⁾ Break in series, 2007.⁽³⁾ 2009 male and female rates, unreliable or uncertain data.

Source: Eurostat (tsiem080)



Table 4.9: Reasons for participation in non-formal education and training, 2007 ⁽¹⁾
(%)

	To get knowledge/skills relating to interesting subjects	To get knowledge/skills useful for everyday life	To increase possibility of getting a job/changing job	To be obliged to participate	To be less likely to lose job	Do job better/improve career prospects	Meet new people, for fun	Obtain qualification	Start own business	Other/no resp.
Belgium	38.7	29.8	9.2	24.1	3.3	64.4	11.8	8.1	2.6	1.9
Bulgaria	38.5	40.0	20.8	22.1	22.0	77.3	9.2	34.3	1.8	1.2
Czech Republic	46.2	33.7	16.8	7.4	13.3	54.6	10.4	20.8	4.5	0.5
Denmark	:	:	:	:	:	:	:	:	:	:
Germany	45.9	14.3	15.6	25.0	19.9	68.0	10.5	11.6	3.8	5.4
Estonia	21.1	17.6	5.8	24.9	15.1	80.2	2.4	8.8	1.6	5.5
Ireland	:	:	:	:	:	:	:	:	:	:
Greece	76.7	52.4	25.5	18.1	16.0	74.8	20.6	48.6	7.9	4.3
Spain	66.6	50.8	28.4	11.8	12.7	68.4	11.8	25.0	4.8	5.0
France	:	:	:	:	:	:	:	:	:	:
Italy	43.9	20.9	10.9	13.8	2.5	47.6	13.3	13.5	2.6	3.9
Cyprus	64.3	38.2	8.7	16.9	2.1	53.6	14.7	13.3	1.6	4.4
Latvia	43.8	58.6	17.8	33.7	27.7	74.7	24.3	37.8	4.4	1.8
Lithuania	50.6	42.3	17.5	26.2	31.3	77.5	11.8	41.4	3.4	3.2
Luxembourg	:	:	:	:	:	:	:	:	:	:
Hungary	56.0	52.0	33.3	51.4	38.3	67.8	13.2	35.2	7.5	1.3
Malta	:	:	:	:	:	:	:	:	:	:
Netherlands	42.4	40.2	12.8	35.9	6.6	66.4	19.2	23.7	4.2	10.1
Austria	57.4	57.2	16.2	23.7	10.5	67.1	20.9	10.7	4.6	5.1
Poland	7.6	7.2	7.2	5.2	6.6	67.1	0.5	7.2	1.4	2.8
Portugal	80.5	81.6	31.8	12.2	16.0	69.9	23.7	47.4	6.6	6.2
Romania	:	:	:	:	:	:	:	:	:	:
Slovenia	12.5	21.2	1.7	13.1	1.0	54.4	1.8	2.3	0.3	2.5
Slovakia	34.6	30.2	23.1	66.1	26.5	63.1	8.8	19.2	4.6	1.8
Finland	62.1	41.1	16.1	35.3	14.3	69.1	30.0	13.5	3.7	9.4
Sweden	59.3	41.8	6.5	36.4	8.0	61.8	20.8	8.9	1.5	5.5
United Kingdom	82.0	44.8	18.1	57.7	2.8	55.0	9.7	33.9	9.3	86.1
Norway	67.9	33.2	9.6	43.1	12.7	71.8	16.0	18.3	1.5	7.2
Croatia	45.4	35.9	17.3	31.7	17.6	78.1	8.3	15.3	4.9	1.4

⁽¹⁾ Multiple answers allowed; Bulgaria, the Czech Republic, Greece, Spain, Cyprus, Portugal, Finland and the United Kingdom did not interview participants taking part in guided on the job training; refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/trng_aes_esms.htm).

Source: Eurostat (trng_aes_142)



Table 4.10: Obstacles to participation in education and training, 2007 ⁽¹⁾
(%)

	Health or age	None within reachable distance	No time due to family	Did not have the pre-requisites	Too expensive, could not afford	Did not like idea of going back to school	Lack of employer support	Conflict with work schedule	Other/ no resp.
EU	14.8	20.8	40.2	15.6	31.2	14.9	18.4	38.7	26.8
Belgium	21.8	13.1	38.4	9.5	17.9	4.8	14.7	33.1	10.6
Bulgaria	11.5	29.7	28.8	16.3	56.7	6.2	11.6	24.1	7.7
Czech Republic	11.9	16.1	38.5	7.8	19.7	2.1	22.5	36.8	3.6
Denmark	:	:	:	:	:	:	:	:	:
Germany	12.1	24.9	33.9	24.1	43.7	11.1	32.8	36.9	13.3
Estonia	18.2	34.5	38.8	2.9	53.1	8.5	8.8	32.6	42.6
Ireland	:	:	:	:	:	:	:	:	:
Greece	10.5	19.1	48.3	7.5	33.4	9.7	9.7	43.0	19.0
Spain	5.8	8.5	41.2	7.5	13.4	2.7	4.7	32.5	27.7
France	:	:	:	:	:	:	:	:	:
Italy	19.7	16.8	49.5	19.2	26.2	16.6	15.2	44.1	12.4
Cyprus	9.3	12.0	67.9	5.2	16.2	4.8	5.2	42.1	12.3
Latvia	11.9	24.1	40.1	11.2	50.8	11.9	29.7	36.8	11.4
Lithuania	13.2	19.6	34.3	3.2	45.6	4.9	16.2	48.4	13.5
Luxembourg	:	:	:	:	:	:	:	:	:
Hungary	12.5	32.4	37.5	13.9	42.3	18.9	39.9	53.2	15.0
Malta	:	:	:	:	:	:	:	:	:
Netherlands	23.8	13.0	29.9	4.2	25.1	13.5	20.1	17.6	22.8
Austria	6.3	22.4	42.3	7.1	34.6	2.8	16.1	39.5	15.8
Poland	9.1	31.0	29.2	9.2	61.3	17.5	20.4	31.4	11.5
Portugal	6.8	34.2	34.5	11.8	22.7	4.1	20.0	26.5	18.9
Romania	:	:	:	:	:	:	:	:	:
Slovenia	15.5	30.2	37.7	7.6	48.5	7.3	22.3	55.5	8.8
Slovakia	10.8	30.9	35.5	56.5	39.3	3.0	25.2	40.7	3.7
Finland	17.1	25.6	31.0	11.6	22.2	7.2	24.0	43.7	21.4
Sweden	23.7	22.0	23.0	5.8	32.5	6.9	19.1	32.4	20.5
United Kingdom	17.0	25.9	42.5	20.8	33.8	24.1	22.6	43.9	56.5
Norway	19.5	13.6	25.8	4.3	17.6	9.2	21.1	32.2	15.7
Croatia	11.0	26.7	48.7	14.9	53.8	4.2	17.1	28.8	8.6

⁽¹⁾ Multiple answers allowed; Denmark, Ireland, France, Luxembourg, Malta and Romania are not included in the EU average; refer to the Internet meta-data file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/trng_aes_esms.htm).

Source: Eurostat (trng_aes_176)



Table 4.11: Providers of non-formal education and training activities, 2007 ⁽¹⁾
(%)

	Em- ployer	Non- formal educ. & train- ing instit.	Formal educ. instit.	Comm. Instit. where educ. & training is not main activity	Em- ployers' org., chamber of com- merce	Non- comm. instit. (e.g. library)	Non- profit assoc.	Individ.	Trade union	Other
EU	38.3	16.5	10.4	8.9	5.0	4.5	4.3	4.3	1.4	4.0
Belgium	41.7	7.3	15.2	8.9	2.8	7.1	7.4	5.6	0.7	0.6
Bulgaria	68.8	14.1	3.1	3.1	3.0	5.8	0.7	1.1	0.2	0.2
Czech Republic	42.9	27.9	10.7	7.6	1.8	2.1	1.5	3.2	0.6	1.1
Denmark	:	:	:	:	:	:	:	:	:	:
Germany	42.4	14.7	4.8	13.8	4.8	6.2	5.3	5.8	1.1	0.5
Estonia	29.2	34.4	10.0	9.4	1.2	3.9	2.1	2.5	5.5	1.7
Ireland	:	:	:	:	:	:	:	:	:	:
Greece	36.0	12.1	14.6	13.6	3.3	5.2	3.2	1.4	2.3	4.8
Spain	19.9	26.2	9.7	5.0	6.7	4.5	5.4	2.9	4.2	11.5
France	25.4	2.9	1.9	6.3	:	:	:	1.7	:	60.2
Italy	27.6	8.5	12.9	8.0	12.9	2.2	4.4	6.3	1.3	11.3
Cyprus	27.1	19.3	5.4	10.1	1.3	15.5	7.1	12.9	0.9	0.3
Latvia	42.6	21.3	13.4	6.8	2.7	1.6	2.2	2.1	0.2	5.2
Lithuania	14.5	28.7	20.8	15.0	9.2	:	1.4	8.7	0.4	:
Luxembourg	:	:	:	:	:	:	:	:	:	:
Hungary	0.6	32.0	7.0	3.5	32.8	6.2	0.1	1.9	13.1	2.7
Malta	:	:	:	:	:	:	:	:	:	:
Netherlands	38.6	:	38.2	:	:	:	4.7	2.1	1.9	11.8
Austria	27.7	21.8	6.7	12.4	4.6	1.4	4.9	4.5	0.3	14.2
Poland	20.8	49.9	13.1	6.1	1.7	:	2.2	3.8	0.2	2.1
Portugal	40.7	20.9	9.1	8.4	2.3	4.5	5.5	1.4	1.4	5.8
Romania	:	:	:	:	:	:	:	:	:	:
Slovenia	11.8	44.6	8.7	8.0	20.8	:	3.9	1.9	0.3	:
Slovakia	40.0	28.2	17.0	7.5	2.8	:	0.7	1.8	0.1	1.1
Finland	36.0	10.1	8.8	1.1	6.7	29.5	0.8	3.0	3.0	:
Sweden	45.5	14.6	4.2	17.1	3.9	3.4	5.6	2.5	2.0	0.5
United Kingdom	50.2	8.2	11.1	:	7.0	1.8	1.9	4.3	0.1	5.4
Croatia	22.0	24.2	15.6	12.8	5.0	1.6	3.3	0.8	0.4	7.7
Turkey	26.4	27.0	7.3	3.2	2.8	25.4	3.8	3.6	0.4	:

⁽¹⁾ Denmark, Ireland, France, Luxembourg, Malta and Romania are not included in the EU average; refer to the Internet metadata file (http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/en/trng_aes_esms.htm).

Source: Eurostat (trng_aes_170)