



European  
Commission

# Education and Training Monitor 2019

## Sweden



## Getting in touch with the EU

Europe Direct is a service that answers your questions about the European Union.

You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696 or
- by email via: [https://europa.eu/european-union/contact\\_en](https://europa.eu/european-union/contact_en)

Luxembourg: Publications Office of the European Union, 2019

© European Union, 2019

Reuse is authorised provided the source is acknowledged. The reuse policy of European Commission documents is regulated by Decision 2011/833/EU (OJ L 330, 14.12.2011, p. 39).

For any use or reproduction of photos or other material that is not under the EU copyright, permission must be sought directly from the copyright holders.

PRINT	ISBN 978-92-76-09447-0	ISSN 2466-9989	doi: 10.2766/33345	NC-AN-19-024-EN-C
PDF	ISBN 978-92-76-09448-7	ISSN 2466-9997	doi: 10.2766/65171	NC-AN-19-024-EN-N

Cover image: composition with images © istock.com

EUROPEAN COMMISSION

# **Education and Training Monitor 2019**

Sweden

Volume 2 of the Education and Training Monitor 2019 includes twenty-eight individual country reports. It builds on the most up-to-date quantitative and qualitative evidence to present and assess the main recent and ongoing policy measures in each EU Member State. It therefore complements other sources of information which offer descriptions of national education and training systems.

Section 1 presents a statistical overview of the main education and training indicators. Section 2 briefly identifies the main strengths and challenges of the country's education and training system. Section 3 focuses on teachers and challenges of teaching profession. Section 4 looks at investment in education and training. Section 5 deals with policies to modernise early childhood and school education. Section 6 discusses measures to modernise higher education. Finally, section 7 covers vocational education and training, while section 8 covers adult learning.

*The Education and Training Monitor 2019 was prepared by the Directorate-General for Education, Youth, Sport and Culture (DG EAC), with contributions from the Directorate-General of Employment, Social Affairs and Inclusion (DG EMPL) and the Eurydice Network. DG EAC was assisted by the Education and Youth Policy Analysis Unit from the Education, Audiovisual and Culture Executive Agency (EACEA), Eurostat, Cedefop and the JRC's Human Capital and Employment Unit, Directorate Innovation and Growth. The Members of the Standing Group on Indicators and Benchmarks (SGIB) were consulted during the drafting phase.*

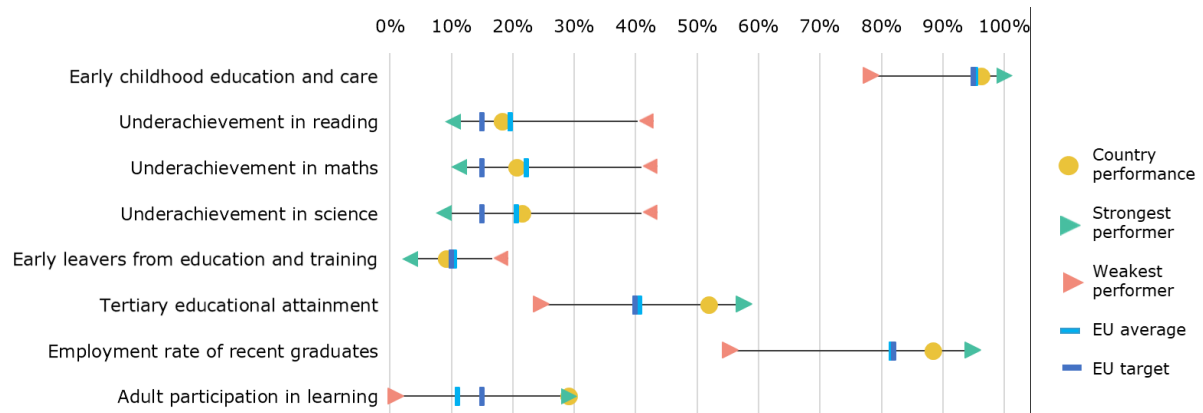
*The manuscript was completed on 26 August 2019.  
Additional contextual data can be found online ([ec.europa.eu/education/monitor](http://ec.europa.eu/education/monitor))*

# 1. Key indicators

		Sweden		EU average		
		2009	2018	2009	2018	
<b>Education and training 2020 benchmarks</b>						
Early leavers from education and training (age 18-24)		7.0%	9.3%	14.2%	10.6%	
Tertiary educational attainment (age 30-34)		43.9%	52.0%	32.3%	40.7%	
Early childhood education and care (from age 4 to starting age of compulsory primary education)		94.7%	96.3% <sup>17</sup>	90.8%	95.4% <sup>17,d</sup>	
Proportion of 15 year-olds underachieving in:	Reading	17.4%	18.4% <sup>15</sup>	19.5%	19.7% <sup>15</sup>	
	Maths	21.1%	20.8% <sup>15</sup>	22.3%	22.2% <sup>15</sup>	
	Science	19.1%	21.6% <sup>15</sup>	17.7%	20.6% <sup>15</sup>	
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)	ISCED 3-8 (total)	81.6%	88.5%	78.3%	81.6%	
Adult participation in learning (age 25-64)	ISCED 0-8 (total)	22.5%	29.2%	9.5%	11.1%	
Learning mobility	Degree-mobile graduates (ISCED 5-8)	:	4.6% <sup>17</sup>	:	3.6% <sup>17</sup>	
	Credit-mobile graduates (ISCED 5-8)	:	10.9% <sup>17</sup>	:	8.0% <sup>17</sup>	
<b>Other contextual indicators</b>						
Public expenditure on education as a percentage of GDP		6.8%	6.8% <sup>17</sup>	5.2%	4.6% <sup>17</sup>	
Education investment	Expenditure on public and private institutions per student in € PPS	ISCED 0	€9 822 <sup>12</sup>	€10 513 <sup>16</sup>	:	€6 111 <sup>15,d</sup>
		ISCED 1	€7 943 <sup>12</sup>	€8 248 <sup>16</sup>	€5 812 <sup>12,d</sup>	€6 248 <sup>15,d</sup>
		ISCED 2	€8 446 <sup>12</sup>	€8 745 <sup>16</sup>	€6 937 <sup>12,d</sup>	€7 243 <sup>15,d</sup>
		ISCED 3-4	€8 430 <sup>12</sup>	€8 407 <sup>16</sup>	:	€7 730 <sup>14,d</sup>
		ISCED 5-8	€17 358 <sup>12</sup>	€17 647 <sup>16</sup>	€10 549 <sup>12,d</sup>	€11 413 <sup>15,d</sup>
Early leavers from education and training (age 18-24)	Native-born	6.4%	7.3%	13.1%	9.5%	
	Foreign-born	11.9%	17.7%	26.1%	20.2%	
Tertiary educational attainment (age 30-34)	Native-born	44.3%	51.9%	33.1%	41.3%	
	Foreign-born	42.6%	52.3%	27.7%	37.8%	
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)	ISCED 3-4	74.6%	83.6%	72.5%	76.8%	
	ISCED 5-8	89.6%	92.5%	83.8%	85.5%	

Sources: Eurostat; OECD (PISA); Learning mobility figures are calculated by the European Commission's Joint Research Centre from UOE data. Further information can be found in Annex I and in Volume 1 ([ec.europa.eu/education/monitor](http://ec.europa.eu/education/monitor)). Notes: The EU's 2009 PISA averages do not include Cyprus; d = definition differs, u = low reliability, p=provisional, 15 = 2015, 17 = 2017.

**Figure 1 Position in relation to strongest and weakest performers**



Source: European Commission, Directorate-General for Education, Youth, Culture and Sport (DG EAC) calculations, based on data from Eurostat (LFS 2018, UOE 2017) and OECD (PISA 2015).

## 2. Highlights

- Tertiary educational attainment and graduate employment rates are high.
- The population's digital skills are among the best in the EU.
- There is a serious teacher shortage, and a large number of teachers lack formal qualifications.
- School segregation and inequality are serious and growing concerns.

## 3. A focus on teachers

**There is a serious teacher shortage.** The number of pupils is rising. Simultaneously, around 40% of teachers are aged over 50<sup>1</sup>, and 10% of compulsory school teachers are aged 60-65. One in five special needs teachers will retire within 5 years<sup>2</sup>. Many teachers are leaving the profession due to health issues and work-related stress (Arevik, 2015)<sup>3</sup>. According to the National Agency for Education (NAE), an additional 92 000 fully qualified teachers and pre-school teachers are needed within the next 4 years (NAE, 2017a). Projections to 2031 show that while 227 000 teachers will be needed, only about 145 000 will graduate, leaving a shortfall of over 80 000 (NAE, 2017b). There are already shortages of science, technology and modern languages teachers. 10% of all university students are already studying to become teachers, and increasing the number in teacher education will not be enough. Efforts are being made to draw on newly arrived migrants who have teaching qualifications from their country of origin (see box). The Swedish Association of Local Authorities and Regions (SALAR) has further suggested employing retired teachers and more effective use of distance education. Only 10.7% of teachers in Sweden believe their profession is valued in society, and it is the first choice of career for only 59.1% (OECD, 2019)<sup>4</sup>. The gender imbalance among teachers is somewhat less pronounced than in other Member States<sup>5</sup>.

**Initial teacher education programmes vary with the level of education.** Initial teacher education programmes for pre-school last 3.5 years and lead to a bachelor's degree. Those for primary school last 4 years, lower secondary 4.5 years and upper secondary 5 years, and lead to a master's degree. There is also a 'Bridging Teacher Education' programme consisting of school placement and education science for those already qualified in school subjects but who have no teacher education.

**A high proportion of people working as teachers lack formal teaching qualifications.** In 2017/2018, almost 20% of teachers in compulsory and 20% in upper secondary schools had no formal initial teacher education<sup>6</sup>; for teachers younger than 29, this rises to 53%. The proportion of unqualified teachers is higher in independent schools (NAE, 2018). There is a strong socio-economic dimension in municipal schools, with students who are Swedish-born and whose parents are better educated more likely to be taught by qualified teachers (Granstrand and Halth, 2018). Researchers claim that many teachers also lack appropriate subject knowledge (Lärarnas Nyheter, 2013). Following a reform in autumn 2016, unqualified teachers are no longer able to have permanent contracts (except for VET or mother tongue teachers) or to grade students (NAE, 2018). According to the Education Act, municipalities should distribute funding for hiring qualified teachers on the basis of socio-economic factors, to improve equality.

**Several major continuous professional development initiatives have been introduced in recent years.** 'Boost for mathematics' (2012) was attended by 75% of all mathematics teachers. 'Boost for reading' (2015) was attended by teachers from 50% of all municipal schools and 25% of independent schools in the first 3 years. 'Boost for teachers' (introduced in 2007) is university-

<sup>1</sup> From 35% for ECEC to 44% for tertiary education.

<sup>2</sup> Swedish Teachers Union.

<sup>3</sup> According to a report from one teacher union, 50% of teachers feel stress, compared with 21% of people in comparable occupations - Lärarförbundet (2018).

<sup>4</sup> In 2018, 23 Member States participated in TALIS survey: Austria, Belgium fr, Belgium nl, Bulgaria, Croatia, Cyprus, Czechia, Denmark, England (UK), Estonia, Finland, France, Hungary, Italy, Latvia, Lithuania, Malta, the Netherlands, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden. TALIS 2018 covers lower secondary teachers and school leaders in mainstream public and private schools.

<sup>5</sup> In 2017, 95% of teachers in ECEC, 76% of primary and 64% of secondary school teachers were women. In tertiary education less than half the teachers were female- Eurostat, UOE, 2017.

<sup>6</sup> See: <https://www.skolverket.se/om-oss/press/pressmeddelanden/pressmeddelanden/2018-03-22-stora-skillnader-i-lararbehorighet-mellan-kommuner>

based training for teachers who do not have a teaching qualification in the subject or age group they teach, with 30 000 teachers enrolled.

**Teachers' salaries are lower than those of other tertiary graduates, and wage progression is very limited.** Teachers' statutory starting salaries are somewhat higher than those of their peers across the EU, but progression to the maximum salary is much lower than the EU average (e.g. for primary 35.2%, EU average 61%)<sup>7</sup>. Teachers earn considerably less than other full-time workers with tertiary degrees (ranging from only 76% for pre-school teachers to 91% for upper secondary school teachers) (OECD, 2018). Low salaries and limited wage progression hinder teacher recruitment and reduce job satisfaction among experienced teachers (which slips from 92.3% initially to 89.9% after 5 years). Only 63.1% of Swedish teachers would become teachers if they could choose again. This is the lowest percentage in the EU (EU average 77.6%), though it has improved by nearly 10 pps since 2013 (OECD, 2019). From 2016/2017, the government has earmarked central funds to increase salaries, under the 'Boost for Teachers' Salaries' initiative. The funds increase salaries for about 30% of teachers by varying amounts (the average is SEK 2 594 (EUR 243.60) per month), and are distributed by municipalities and independent schools to excellent teachers.

#### Box 1: 'Fast-track' – an opportunity for newly arrived pre-school teachers and teachers in Sweden

In 2015, six universities jointly developed a 'fast-track training course' for newly arrived migrant teachers and pre-school teachers. It has since targeted refugees and asylum seekers. The programme combines 'supplementary teacher education' at one of the universities, given partly in Arabic and partly in English, with studies in Swedish and a 26-week internship at a school or pre-school. Between April 2016 and December 2018, 1 261 newly arrived teachers and pre-school teachers benefited from the programme. To become a qualified teacher, they still need to complete a bridging programme and pass a teaching examination. This is proving a challenge for many.

The broader 'fast-track' initiative was set up, also in 2015, by the social partners and the public employment service in 20 professions where there are labour shortages. The scheme for teachers has been one of the most successful.

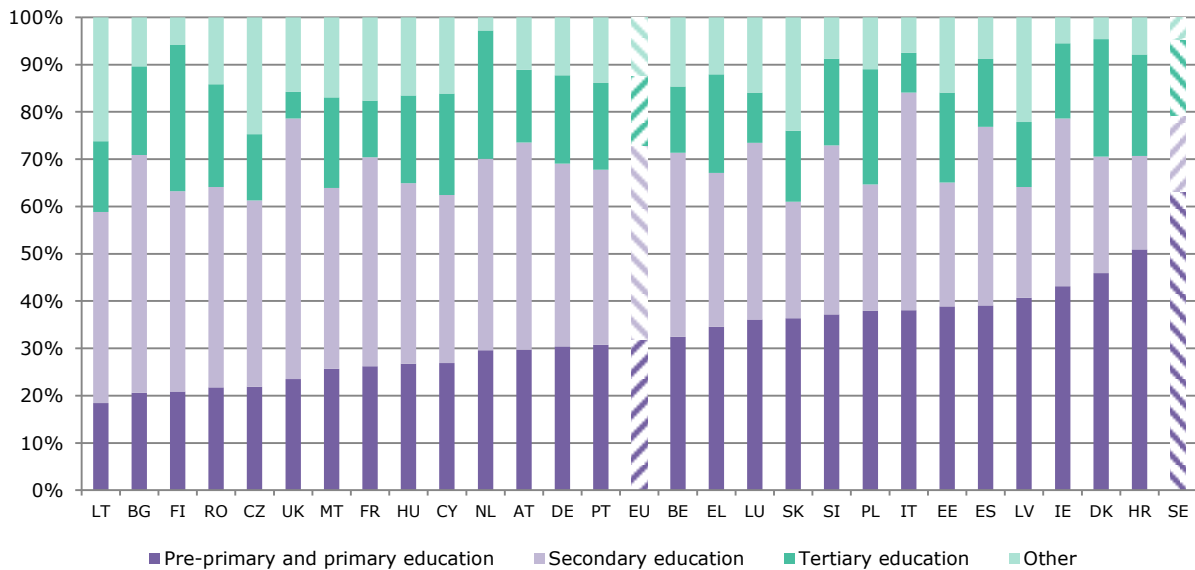
## 4. Investing in education and training

**Investment in education is high, and is concentrated in compulsory education.** In 2017, Sweden was the Member State that dedicated the biggest share of GDP to education (6.8%), much higher than the EU average (4.6%). The share of total general government expenditure on education is also very high (13.7%, EU average 10.2%), with an increase of 1.1 pps from 2013 to 2017. Sweden spends 63.3% of this on pre-primary and primary education, a share which is the highest in the EU and almost double the EU average. The proportion spent on upper secondary education (16.1%) is the lowest in the EU (EU average 41.0%)<sup>8</sup>.

<sup>7</sup> Eurydice, 2018.

<sup>8</sup> Eurostat, COFOG, 2017.



**Figure 2 General government expenditure in education by level, 2017**


Source: Eurostat.

### The school-age population is rising, and further investment in education will be needed.

The school-age population is expected to grow by 12.3% between 2020 and 2030, and by 17.8% by 2040, one of the highest rates of growth in the EU. Continued high investment in education will be needed<sup>9</sup>. In 2019, Sweden received a country-specific recommendation from the Council of the European Union to, among other things 'focus investment-related economic policy on education and skills' (Council of the European Union, 2019).

## 5. Modernising early childhood and school education

**Participation in early childhood education and care (ECEC) is high and a new emphasis on learning is being introduced.** Participation in ECEC for children up to 3 years old is one of the highest in the EU (52.7%, EU average 34.2%)<sup>10</sup>. In 2017, it was 96.3% among children from 4 until the starting age of compulsory education, above the EU average of 95.4% and the EU benchmark for 2020 of 95%<sup>11</sup>. Traditionally, ECEC has concentrated on play and pupil-centred pedagogy, but in 2018 a new curriculum was adopted (Regeringen, 2018a) which incorporates a strengthened focus on learning, in particular reading and digital skills. Implementation should begin from autumn 2019. From autumn 2018, 'pre-school class' is a mandatory part of the school cycle<sup>12</sup>, with more teaching content to prepare children for their first school year. Challenges for ECEC relate to the differences in quality and provision between municipalities and the shortage of qualified ECEC teachers.

**Early school leaving is below the EU average.** While the rate of 9.3% is below the EU average (10.6%), there has been a rise from 7% in 2009, and the national Europe 2020 target of 7% seems unattainable. Young men are 2.4 pps more likely to leave school early than young women. There is a wide and growing difference between native-born pupils (7.3%) and those born abroad (17.7%).

<sup>9</sup> 600 new schools and 300 new kindergartens need to be built by 2020 – (SALAR, 2018).

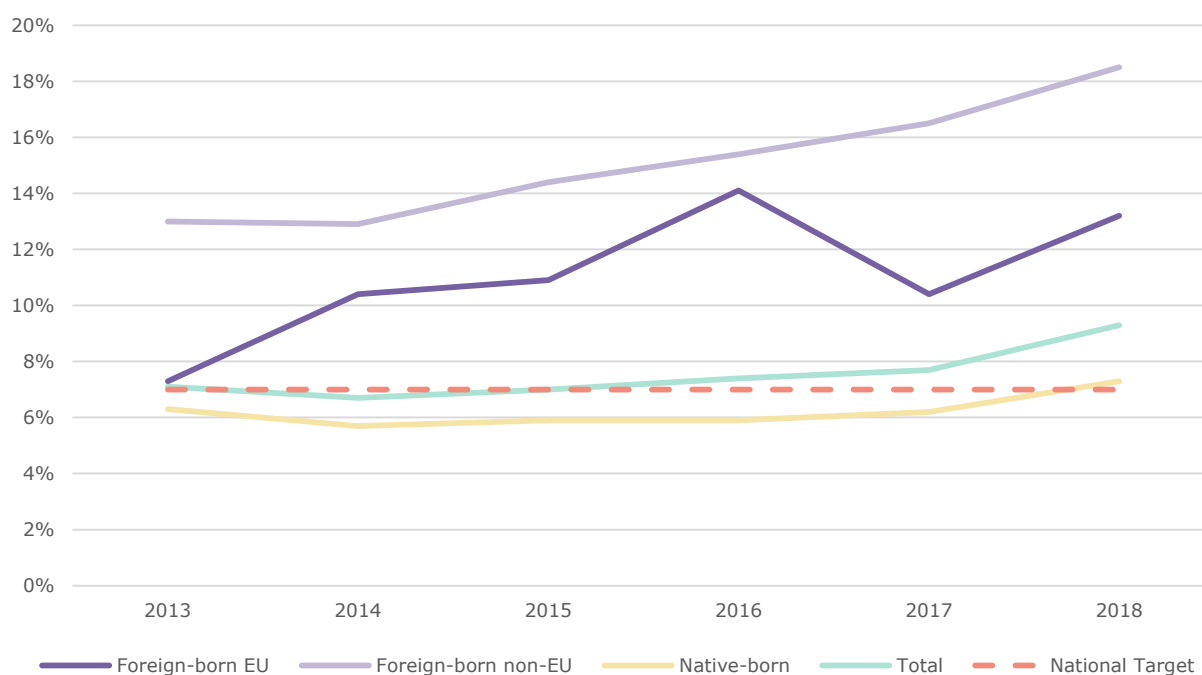
<sup>10</sup> Eurostat EU-SILC survey.

<sup>11</sup> Eurostat, UOE, 2017.

<sup>12</sup> The amendment to the Education Act (2010:800) entered into force on 1 January 2018.



**Figure 3 Early leavers from education and training by country of birth(18-24 years) 2013-2018**



Source: Eurostat. Online data code: [edat\\_lfse\\_02](#)

**Growing segregation and inequality in schools are serious concerns.** Growing inequalities within a traditionally highly inclusive system can be traced to the 1990s education reform, when education was decentralised and a school market and school choice were introduced. Private providers run independent schools (publicly funded but privately run). Evidence shows that school choice contributes to segregation, as children of well-educated and Swedish-born parents tend to opt for independent schools more frequently than migrants and children of less well-educated parents (Kornhall and Bender 2019, p. 5). This segregation has a negative effect on school results for already vulnerable students. It is likely that segregation has contributed to the reduced equity and declining overall educational results observed in the OECD's PISA survey and in national grades and tests (Kornhall and Bender, 2019, p. 18). PISA shows that the impact of socio-economic status in Sweden is higher than the EU average<sup>13</sup>. The fact that municipalities are responsible for funding schools creates further potential for inequality, given the wide differences in resources at their disposal. Additional funding is being directed to municipalities whose schools have concentrations of children from migrant and lower socio-economic backgrounds: SEK 1 billion (EUR 104 million) in 2018, SEK 3.5 billion (EUR 365 million) in 2019 and SEK 6 billion (EUR 627 million) in 2020. The aim is to help schools attract better teachers and improve teaching quality (SOU, 2017).

**Swedes' digital skills are among the best in the EU and continue to improve.** The digital skills of young people aged 16–19 are better than the EU average (68% have above-basic skills, EU average 57%). Sweden has the second highest proportion (77%) of individuals aged 16–74 who have basic or above-basic overall digital skills (EU average 57% in 2017)<sup>14</sup>. The proportion of those regularly using the internet is also among the highest (91% in 2018, EU average 83%). This figure has remained high for the past 7 years. The education system is one of the most digitalised in the EU: most schools have one computer per student and even pre-schools are close to that level. Sweden has had a digital strategy for schools since 2017, and programming has recently been incorporated into 13 of the 19 subjects in the national curriculum (Regeringen, 2017). One goal is that by 2022 all schools should be prepared for national tests to be taken digitally. In March 2019 SALAR and NAE created a national action plan to digitalise the school system and formal adult

<sup>13</sup> Measured as the score-point difference in science associated with one-unit increase in the PISA index of economic, social and cultural status (OECD, 2016).

<sup>14</sup> Eurostat, DESI, 2017.

education. Despite the good digital skills of the population, the proportion of teachers who feel well or very well prepared to use information and communications technology (ICT) for teaching is below the EU average (37%, EU average 39.4%). 22.2% of teachers report a high need to develop their ICT skills (EU average 16.1%).

## 6. Modernising higher education

**Tertiary educational attainment is one of the highest in the EU.** Sweden has a high tertiary educational attainment rate (52 % in 2018), above the Europe 2020 national target of 45-50% and much higher than the EU average (40.7%). It has been consistently high for years, and since 2010 has risen by approximately 1 p.p. annually. The rate for women is 59.1% and that for men 45.3%. The attainment rate of foreign-born people from other EU countries is almost as high as that of the native-born population, but there is a big gap for foreign-born people from non-EU countries (attainment rate 35.2%)<sup>15</sup>.

**Although the employment rate of tertiary graduates is among the highest in the EU, the proportion of graduates in natural sciences and mathematics is low.** While the proportion of graduates in science, technology, engineering and mathematics (STEM) subjects (27.5%) is slightly above the EU average, most of them are studying engineering and construction (18.8%). In 2017, the proportion studying natural sciences, mathematics and statistics was among the lowest in the EU (4.4%, EU average 7.6%)<sup>16</sup>. The employment rate among recent tertiary graduates is one of the highest in the EU (92.5% in 2018)<sup>17</sup> and has been constantly increasing since 2010. However, there is a shortage of graduates in teaching, medicine, nursing (European Centre for the Development of Vocational Training (Cedefop, 2018) and ICT (Almega, 2017).

**Two major changes in the right to access tertiary education will enter into force in 2022.** One affects existing access through the National University Aptitude Test, which is taken after successful completion of secondary education to improve the chances of being selected for highly attractive university studies. The test will be restricted to students who are at least 18 years old. The government hopes the change will encourage students to focus on completing their upper secondary studies first. The second change is the creation of a new test to validate competencies, designed to allow those aged 24 or older who have not completed secondary education to pursue tertiary studies.

**An expert group has proposed changes in the funding of tertiary education.** In 2018, a commission of inquiry into funding for higher education recommended a common budget allocation for education and research, with an increased share for research (to rise from 44% to at least 50% of the total). It also proposed quality assurance of both higher education and research, and a funding mechanism for universities' social responsibilities (SOU, 2019).

**Tertiary education teachers are among the oldest in Europe, and their employment is insecure.** Of tertiary education teachers, 44% are older than 50, and 19% older than 60<sup>18</sup>. Employment in tertiary education is not always secure, as 28% of teachers and researchers have only temporary contracts (SULF).

**A new strategy for internationalisation was proposed recently.** An expert group proposed a new national strategy to internationalise higher education. The proposals call for the recruitment of more international students by facilitating enrolment and increasing scholarships (including bilateral funding agreements with non-EU countries), incentives for industry (tax deductions for donations and scholarships) to support higher education and boost the supply of skills, and increased funding for universities, with increased autonomy to reduce tuition fees for non-EU students. These proposals should be implemented in 2020–2030. Learning mobility among Swedish graduates is higher than the EU average (15.5%, EU average 11.6%), but it is still below the EU benchmark of 20%. Inward mobility, at 10.3%, is somewhat lower than the EU average (10.8%), and most of it is in postgraduate degrees. Most international graduates come from other EU countries or from countries in Asia.

<sup>15</sup> Eurostat, LFS, 2018.

<sup>16</sup> Eurostat, UOE, 2017.

<sup>17</sup> Eurostat, LFS, 2018.

<sup>18</sup> Eurostat, UOE, 2017.

## 7. Modernising vocational education and training

**Participation in initial VET is low, though the employment rate of recent VET graduates is one of the highest in the EU.** In 2017, nearly 37 900 new students entered upper secondary formal VET education in Sweden, an increase of 3% from 2016 (UOE, 2017). 34.1% of students at upper secondary level attend vocational education, below the EU average (47.8%) (UOE, 2017). Few students participate in combined school- and work-based programmes (UOE, 2017). The employment rate among recent VET graduates has increased slightly from 87.8% in 2017 to 88.7% in 2018. It is above the EU average (79.5%) (LFS, 2018), among the highest in the EU and almost as high as that of tertiary education graduates<sup>19</sup>.

**Measures are being taken to make VET more attractive.** They include establishing VET courses that prepare for tertiary education, and the development of new apprenticeships by the Apprenticeship Centre, working with stakeholders. National and regional coordinators have been set up to help schools collaborate with local enterprises (Cedefop, forthcoming). A national commission of inquiry into vocational education suggested establishing trade or industry schools to provide a work-based component. This has been a pilot project since January 2018, involving 10 trade schools which can obtain a state grant of up to SEK 50 000 (EUR 4 670) per learner (Cedefop, forthcoming). In 2018, an inquiry began to explore a regionalised model of upper secondary provision and diversification of programmes, to better address the mismatch with skills needs (Regeringen, 2018b). Findings will be presented in February 2020. A January 2019 report explored supporting learners in making well-informed choices. It proposes individual career guidance and a compulsory activity 'Future choices' focusing on working life, career paths and vocational areas before learners proceed to upper secondary education (Ministry of Education, 2019).

**The shortage of teachers also impacts VET.** There is a lack of qualified VET teachers, and the situation is expected to get worse. The NAE is running a campaign to attract professionals. State grants were introduced in 2013 and 2016 to raise salaries for particularly well-qualified teachers, while companies that offer apprenticeships receive financial support if their trainers undergo training. School managers and school leaders in municipalities receive support in change management and digitalisation (NAE, ReferNet Sweden, 2019).

### Box 2: Yrk in

The 'Yrk in' project (2017–2020) aims to increase young people's interest in VET, provide them with better job opportunities, develop new forms of study and vocational guidance, step up collaboration with employers and achieve less gender-stereotyped programme selection.

The target group is young people aged 15–24 who lack secondary school education, with a particular focus on newly arrived migrants. The project aims to support 400 young people who are preparing for upper secondary school studies or who wish to resume them.

Yrk in supports improved guidance and flexible admission and forms of training for migrants and others.

Methods used are early work-life training/education, support to businesses, training of mentors/job coaches, study guidance, visits to industries, and career portfolios for new arrivals.

Yrk in is being implemented by SALAR in four regions. The total budget is SEK 30.5 million (EUR 3 million), of which SEK 20.5 million (EUR 2 million) comes from the European Social Fund.

## 8. Developing adult learning

**The proportion of low-skilled adults is below the EU average, and they are more likely to participate in adult learning, but there are jobs available to only one in three of them.** 14.47% of the adult population have not acquired at least an upper-secondary qualification (EU average: 21.9%) (LFS, 2018). Furthermore, the proportion of low-qualified adults actually in employment is higher (64%), than the EU average (56.8%) (LFS, 2018). Participation in adult learning (29.2%), is the highest in the EU and substantially above the EU average (11.1%) (LFS, 2018). The need for more substantial upskilling remains, however: in 2017 there were 751 000

<sup>19</sup> Eurostat, LFS, 2018.

low-qualified adults but only 242 000 jobs with an elementary skills requirement (LFS, 2017). In 2017, no adults aged 25 or above acquired an upper-secondary qualification (UOE, 2017).

**Boosting adult learning is an objective of the new government's coalition agreement (January 2019).** Adults will be given additional opportunities to participate in further education and training, and the conditions of study loans will be improved (NAE, ReferNet Sweden, 2019).

**Changes have been proposed to municipal adult education and there are proposals to develop a new teacher education profile for adult learning.** In August 2018 a national commission of inquiry proposed making the system more responsive to changes in the labour market and to the needs of individuals, both as second-chance education and as support for career changes (Ministry of Education, 2018). It also proposes offering more apprenticeship and school-based training to adults with intellectual disabilities (NAE, ReferNet Sweden, 2019). There are no programmes which directly train teachers to teach in formal adult education. The inquiry into municipal adult education has proposed offering a formal adult education profile by some higher education institutions (NAE, ReferNet Sweden, 2019). The commission's proposals are now being worked on within the Government Offices.

## 9. References

Almega (2017), *The IT skills shortage, A report on the Swedish digital sector's need for cutting-edge expertise*, [https://www.almega.se/app/uploads/sites/2/2018/06/ittelekom\\_rapport\\_brist\\_pa\\_it-kompetens\\_eng\\_webb.pdf](https://www.almega.se/app/uploads/sites/2/2018/06/ittelekom_rapport_brist_pa_it-kompetens_eng_webb.pdf)

Arevik, N. (2015). 'Bristen på likvärdighet större än någonsin'. *Pedagogiska magasinet*.

Cedefop (2018), *2018 skills forecast Sweden*, [http://www.cedefop.europa.eu/files/cedefop\\_skills\\_forecast\\_2018\\_-\\_sweden.pdf](http://www.cedefop.europa.eu/files/cedefop_skills_forecast_2018_-_sweden.pdf)

Cedefop (forthcoming). 'Developments in vocational education and training policy in 2015-19: Sweden'. *Cedefop monitoring and analysis of VET policies*.

Cedefop (forthcoming). *Vocational education and training in Sweden: short description*. Luxembourg: Publications Office of the European Union.

Council of the European Union (2019), Council Recommendation on the 2019 National Reform Programme of Sweden and delivering a Council opinion on the 2019 Convergence Programme of Sweden.

Eurydice, 2018. *Teachers' and School Heads' Salaries and Allowances in Europe – 2016/17*.

Granstrand, C. and G. Halth (2018). 'Utsatta skolor får nobben'. *Dagens Samhälle*. Issue 38, pp. 2-3.

Kornhall, P. and Bender, G. (2019). *School segregation in Sweden: evidence from the local level*. NESET Ad hoc report.

Läraryrket (2018). *Fast i en obalans mellan krav och resurser – en granskning av lärares arbetsbelastning och stress*. Stockholm, Läraryrket.

Lärarnas Nyheter (2013). 'Stor brist på behöriga ämneslärare'. <https://lararnastidning.se/stor-brist-pa-behoriga-amneslarare/>

Ministry of Education (2018), *En andra och en annan chans – ett komvux i tiden* SOU 2018:71: <https://www.regeringen.se/rattsliga-dokument/statens-offentliga-utredningar/2018/09/sou-201871/>

Ministry of Education (2019), *Framtidsval – karriärvägledning för individ och samhälle* SOU 2019:4: <https://www.regeringen.se/rattsliga-dokument/statens-offentliga-utredningar/2019/01/sou-20194>

National Agency for Education (NAE) (2017a), <https://www.skolverket.se/om-oss/press/pressmeddelanden/pressmeddelanden/2017-12-18-stort-behov-av-fler-larare>

National Agency for Education (NAE) (2017b). *Redovisning av uppdrag att ta fram återkommande prognoser över behovet av förskollärare och olika lärarkategorier, Redovisning av regeringsuppdrag*. Dnr: 2016:906. Skolverket. Stockholm, Skolverket. <https://www.skolverket.se/getFile?file=3876>

National Agency for Education (NAE) (2018), *Stora skillnader i lärarbehörighet mellan kommuner* <https://www.skolverket.se/om-oss/press/pressmeddelanden/pressmeddelanden/2018-03-22-stora-skillnader-i-lararbehorighet-mellan-kommuner>

National Agency for Education (NAE), ReferNet Sweden. (2019). *Vocational education and training in Europe – Sweden*. Cedefop ReferNet VET in Europe reports 2018. [http://libserver.cedefop.europa.eu/vetelib/2018/ReferNet\\_Sweden\\_VET\\_in\\_Europe\\_2018.pdf](http://libserver.cedefop.europa.eu/vetelib/2018/ReferNet_Sweden_VET_in_Europe_2018.pdf)

OECD (2016) *PISA 2015 Results (Volume I): Excellence and Equity in Education*

OECD (2018), *Education at a Glance 2018: OECD Indicators*, OECD Publishing, Paris. <http://dx.doi.org/10.1787/eag-2018-en>

OECD (2019), *TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners, TALIS*.

Regeringen (2017). *Nationell digitaliseringsstrategi för skolväsendet. Bilaga till regeringsbeslut I:1, 2017-10-19*. Utbildningsdepartementet. Stockholm.

Regeringen (2018a). *Innebörden av förordningen om läroplan för förskolan. Promemoria U2018/03418/S*. Utbildningsdepartementet, Regeringskansliet.

Regeringen (2018b), *Kommittédirektiv. Planering och dimensionering av gymnasial utbildning*: <https://www.regeringen.se/494272/contentassets/6a4e80bead4a46918949e660ea1fbfe6/planering-och-dimensionering-av-gymnasial-utbildning-dir-2018.17.pdf>

SOU (Statens offentliga utredningar) (2017), *Samling för skolan: nationell strategi för kunskap och likvärdighet*, SOU 2017:35, Stockholm. [http://www.sou.gov.se/wp-content/uploads/2017/04/SOU\\_2017\\_35\\_webb\\_Final-version.pdf](http://www.sou.gov.se/wp-content/uploads/2017/04/SOU_2017_35_webb_Final-version.pdf)

SOU (Statens offentliga utredningar) (2019). *En långsiktig, samordnad och dialogbaserad styrning av högskolan. Utbildningsdepartementet*, 2019:6 Stockholm, Statens offentliga utredningar. <https://www.regeringen.se/rattsliga-dokument/statens-offentliga-utredningar/2019/02/sou-20196/>

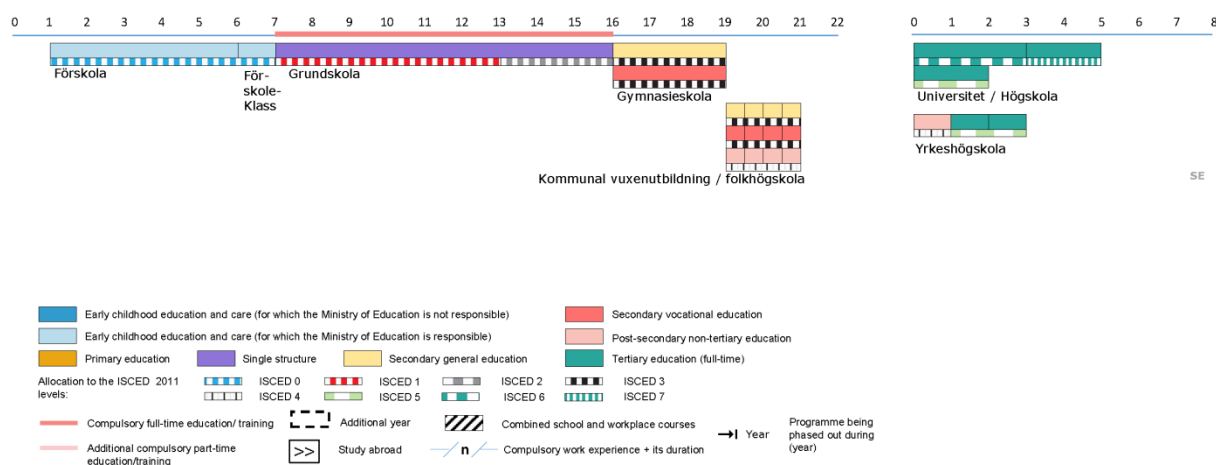
Swedish Association of Local Authorities and Regions (SALAR) (2018), *Skolans rekryteringsutmaningar – lokala strategier och exempel*. <https://webbutik.skl.se/sv/artiklar/skolans-rekryteringsutmaningar-.html>

Swedish Association for University Teachers and Researchers - SULF, *Tryggare anställningsvillkor och fler karriärvägar*, <https://sulf.se/sulf-tycker/tryggare-anstallningsvillkor-och-fler-karriarvagor/>

## Annex I: Key indicator sources

Indicator	Eurostat online data code
Early leavers from education and training	edat_lfse_14 + edat_lfse_02
Tertiary educational attainment	edat_lfse_03 + edat_lfs_9912
Early childhood education and care	educ_uoe_enra10
Underachievement in reading, maths, science	OECD (PISA)
Employment rate of recent graduates	edat_lfse_24
Adult participation in learning	trng_lfse_03
Public expenditure on education as a percentage of GDP	gov_10a_exp
Expenditure on public and private institutions per student	educ_uoe_fini04
Learning mobility:	
- Degree-mobile graduates	JRC computation based on Eurostat / UIS / OECD data
- Credit-mobile graduates	JRC computation based on Eurostat / UIS / OECD data

## Annex II: Structure of the education system



Source: European Commission/EACEA/Eurydice, 2018. *The Structure of the European Education Systems 2018/19: Schematic Diagrams*. Eurydice Facts and Figures. Luxembourg: Publications Office of the European Union.

Comments and questions on this report are welcome and can be sent by email to:  
 Marina GRŠKOVIC  
[Marina.Grskovic@ec.europa.eu](mailto:Marina.Grskovic@ec.europa.eu)  
 or  
[EAC-UNITE-A2@ec.europa.eu](mailto:EAC-UNITE-A2@ec.europa.eu)





## Highlights of the cross-national analysis

Among all factors in the school environment, teachers are considered to have the greatest impact on students' learning outcomes. At the same time, more than 60%<sup>20</sup> of public expenditure in education in the EU is spent on teachers. Any policy effort seeking to improve educational outcomes – or the efficiency of education and training – is bound to take a close look at the role of teachers and look for ways to help teachers excel in their demanding profession. New evidence from the OECD TALIS survey sheds more light on teachers. The recent survey data inform the 2019 Education and Training Monitor, which contains a dedicated analysis of school teachers in the EU. Being a unique source of information on teachers' motivations, lifelong learning and careers, the new evidence from TALIS 2018 can help policy-makers harnessing the full potential of teachers by preventing and addressing challenges.

After the teacher-dedicated part, the 2019 Monitor sets to analyse the existing targets adopted by the Council of the European Union under the strategic framework for European cooperation Education and Training 2020 ('EU benchmarks'). This part of the report presents latest data on participation in early childhood education and care; early leaving from education and training; tertiary educational attainment; underachievement in basic skills; employment rate of recent graduates; adult learning; and learning mobility in higher education. Next, the 2019 Monitor offers analysis on education indicators used in other well-established or emerging priorities, including entrepreneurship education; digital education; multilingualism. The report concludes with a section analysing public investment in education and training.

### At the core of learning: the teachers

Across the entire EU, education systems are confronted with a number of challenges relating to teachers. Several countries already face or are about to face shortages of teachers, either across the board or in particular subject areas (typically science, technology, engineering and maths); or in particular geographical areas. In view of the proportions of teachers aged 50 or plus, the 23 EU countries participating in TALIS 2018 will have to renew about one third of their teaching population in the next decade or so. At least five EU countries will have to renew around half of their secondary school teachers in the same period (Italy, Bulgaria, Lithuania, Estonia, Greece and Latvia; and the same applies to primary school teachers in the former three countries).

Successfully renewing the teachers' population requires acting upon key factors such as the number of students deciding to embark on teacher education, the number of new teachers starting in the job and the number of teachers stopping to work. To address this challenge, there is a need to improve the attractiveness of the profession and offer good working conditions for sustained professional activity.

According to survey data, only 18% of lower secondary school teachers in the EU consider their profession as valued by society; and their proportion lowers with longer years of teaching experience. Similarly, the share of teachers would still choose to work as teachers, declines significantly, in several EU countries, among more experienced teachers. Overall, there is a specific challenge in attracting men into teaching; and particularly so for primary and pre-primary education, where the proportion of female teachers reaches 85% and 96% respectively.

Salaries of teachers do not always compare favourably to salaries of other equally qualified professionals. Among EU countries with available data, in four countries (Czechia, Slovakia, Italy and Hungary) teachers at all education levels earn less than 80% of what other tertiary-educated workers do. In most Member States, primary (and especially pre-primary) teachers earn less than secondary level teachers. In secondary education, teachers' statutory salary tends to be higher at upper-secondary level than at lower-secondary level.

There are also shortages of teachers with specific profiles. Nearly 40% of principals in lower secondary schools in the EU declare that the shortage of teachers teaching students with special

---

<sup>20</sup> DG EAC calculation on Eurostat's general government finance statistics, reference year 2017 ([gov\\_10a\\_exp](#)).



needs hinders the quality of instruction at their school. Principals also point to shortages of teachers who have competences in teaching in a multicultural or multilingual setting (the largest shortages are in France, Italy and Portugal); and competences in teaching students from socio-economically disadvantaged homes (largest shortages in France, Italy, and Portugal). This second type of shortage is driven by change (technology; diversity in classrooms) and points to a need to improve training (initial and continued).

Furthermore, against an evolving technological and demographic background, teachers need new skills more than ever, including for dealing with cultural and linguistic diversity in the classroom, teaching in a technology-rich environment, and adopting collaborative teaching practices. While 92% of teachers report regular participation in professional development, 21% of them declare a further need for training on teaching students with special needs; 16% report a further need for training on the use of information and communication technology (ICT) for teaching; and about 13% report a further need for training in teaching in multilingual and multicultural environments.

### **Growing participation in education and educational attainment: main achievements in the last decade**

In the last decade, the EU experienced a massive increase in tertiary educational attainment and met its target of having at least 40% tertiary graduates in the 30-34 year-old population – up from 32% in 2009. Despite this increase, there are clear patterns of inequalities in educational attainment. For example, on average, women's tertiary educational attainment (45.8%) is higher than men's (35.7%) – and the gap has been continuously increasing over recent years. Typically, women complete tertiary education earlier than men do. Also, young adults born in the reporting country or elsewhere in the EU, graduate more than their peers from non-EU countries (41.0% against 35.8% respectively). Yet, an overview of policy measures to broaden tertiary educational attainment shows that less than half of EU countries set specific targets to support participation in higher education of under-represented groups, such as, for example, people with disabilities, migrants or students from disadvantaged background.

The attendance of children from the age of 4 in early childhood education has expanded, and is, by now, almost universal. There are also high rates of participation in early childhood education by children from the age of 3. Yet the 90% participation rate for the general population decreases to 77.8% in the group of children at risk of poverty or social exclusion. Experiencing education in the early years of life has been found to be beneficial for better learning outcomes later on in life, and particularly so for children from socio-economically disadvantaged homes. The challenge of ensuring equal access to education in the early years needs to be addressed.

Since the EU cooperation framework in education and training started in 2009, the proportion of young adults leaving education and training without obtaining at least an upper secondary qualification has considerably reduced. Nonetheless, at EU level this process came to a halt after 2016. Comparing 2016 and 2018, there was progress on this indicator in large countries such as Spain or Poland, as well as in other countries such as Romania, the Netherlands and Portugal. However, this was countered by negative developments in other countries – for example, Italy, Sweden, Denmark, Slovakia, and Estonia (in descending order by size of population). Furthermore, in the past 2 years, early school leaving rates increased for both young adults born in the EU (between 2016 and 2017) and those born outside (between 2017 and 2018). Reducing early leaving remains a priority and a target of the EU, as those who leave education and training before obtaining an upper-secondary diploma will struggle with lower employment rates and lower rates of participation in adult learning.

### **The main challenge for the next decade: improving learning outcomes at school, and increasing adult participation in learning**

Participation in education can be measured by data on enrolments, qualifications, or performance test. The latter show that reducing the number of underachieving 15-year-olds to meet the EU

target of less than 15% by 2020<sup>21</sup> remains a challenge, particularly for pupils from disadvantaged socio-economic backgrounds. Failing to achieve basic mathematics, reading or science tasks at the age of 15 impacts on individuals' chances to continue studying, find and maintain employment later in life, cope with fast-paced technological change, and develop as citizens. Between 2012 and 2015, the EU has actually moved further away from meeting this target. Approximately one fifth of pupils in the EU cannot complete basic reading tasks, and the share is slightly higher for science and maths (2015 data). Despite less favourable or sometimes adverse background conditions, around a quarter of socio-economically disadvantaged pupils born in another country are considered academically resilient. Individual factors associated with higher resilience include high academic expectations, and not repeating grades; while disengagement from school (for example skipping classes, and abusing substances) has a negative association with resilience. At school level, the use of school evaluations, connecting the students' test results to teachers' performance, adequate provision of study rooms and being surrounded by pupils with higher socio-economic status are all factors correlating positively with resilience.

Over the years, there has been limited growth in the share of adults participating in education and training during the last 4 weeks in the EU – from 9.5% in 2008 to 11.1% in 2018. In addition, in practically in all EU countries people with little or no qualifications in education – those most in need of access to learning – are the least likely to benefit from it. Age and educational attainment matter when it comes to adult participation in learning. Young adults (25-34) are more than four times more likely to participate in learning as those aged 55-64. Similarly, those with a tertiary degree are more than four times more likely to participate in learning than those holding at most an upper-secondary diploma.

## Developing competences for future life and employment

Research has long established the positive outcomes of being able to study abroad. Transnational learning mobility is associated with future mobility, higher earnings, and lower risk of unemployment. 'Making learning mobility a reality for all' is one of the objectives of the European Education Area<sup>22</sup>. In 2017, 11.6% of higher education graduates 'were mobile', meaning that they studied partially or entirely abroad. About 8% of them were abroad for short-term periods, while 3.6% graduated in another country. The Erasmus+ programme supported about half of the short-term study periods spent abroad by EU graduates. Overall, Luxembourg, Cyprus, the Netherlands, and Finland (in descending order) have high shares of mobile graduates. As to inward mobility, capturing the volume of students coming into a country for a period of study, it can be read as a measure of the attractiveness of the education system. On this indicator the United Kingdom leads the way – both in percentage of inward graduates and in absolute numbers.

There are a number of key competences (or combination of knowledge, skills and attitude) that can support an individual's life chances and also easier transition to the labour market and career job prospects. For example, participation in entrepreneurship education increases the likelihood of engaging in entrepreneurial activities later in life by 35% on average. Of this 35%, a 7 percentage point increase is due to improved self-perceptions by participants of their entrepreneurial skills. However, available data show that participation in entrepreneurship education in the EU is mostly optional, and only a handful of countries make it compulsory.

Furthermore, the potential of digital technologies in improving educational practices is being held up by challenges that education systems still face. To successfully undergo digital transformation, schools need to support teachers' digital competence for pedagogical use, design innovative pedagogical approaches, and provide digital equipment as well as better connectivity. Capacity

---

<sup>21</sup> Data for this benchmark come from the OECD PISA survey. Students scoring below level 2 are considered underachievers.

<sup>22</sup> In November 2017, EU leaders met in Gothenburg to discuss the social dimension of Europe, including education and culture. As part of the debate on the Future of Europe, the Commission set out its vision and concrete steps to create a European Education Area by 2025. One of the main objective of the European Area of Education is 'making mobility a reality for all', by building on the positive experiences of the Erasmus+ programme and the European Solidarity Corps and expanding participation in them, as well as by creating an EU Student Card to offer a new user-friendly way to store information on a person's academic records. Other measures to boost mobility under the European Education Area include initiating new processes to ensure the mutual recognition of diplomas; improving language learning; creating a network of European universities; and supporting teachers and their mobility.

building for digital assessment needs to be implemented for learners, teachers, schools and education systems.

Moreover, speaking several languages can increase individuals' employment prospects. Overall in Europe, between 2005 and 2015, the number of pupils who experienced compulsory language learning grew both in primary and secondary education. As to the former, 83.7% of primary school children learned at least one foreign language in 2014, against 67.3% almost a decade before. At lower secondary level, 59% of pupils learned two languages in school in 2015, against 46.7% in 2005.

After reaching the lowest point in 2013 (75.4%), the employment rate of recent graduates has been continuously increasing in the EU. With 81.6% in 2018, the rate is now close to the pre-crisis 2008 level of 82%. However, some countries still suffer from the effects of the crisis on employability of recent graduates – in particular Greece and Italy, where employment rates of recent graduates are around 55%. As compared to secondary graduates holding a vocational qualification, those with a general orientation qualification have a less easy transition into the labour market (66.3% against 79.5%). The employment rate of tertiary graduates was at 85.5% in 2018.

## Public investment in education

In 2017, EU Member States invested, on average, 4.6% of their gross domestic product (GDP) in their education systems. This proportion has been slightly but continuously decreasing in the last few years, down from 4.9% in 2014. On average, EU countries spend about one third of their public expenditure for education on pre-primary and primary education; 41% on secondary education; and 15% on tertiary education. Looking at different education sectors, real expenditure on secondary and post-secondary education decreased (-1.3%, between 2016 and 2017) and increased in pre-primary and primary education (+ 1.4%), as well as tertiary education (+ 1.7%). So far trends in education expenditure have been largely independent from demographic developments, with the partial exception of expenditure on tertiary education. Due to the predicted school-age population decline in many EU countries, even constant spending on education is likely to result in an increase in spending per student.

## Highlights of the country analysis

### Austria

To avoid teacher shortages, Austria needs to attract enough students into initial teacher education and improve continuing professional development. Investment in higher education aims to improve the study environment. Improving digital competence is a priority in the education and training system. Discontinued recent reforms may weaken efforts to integrate students with migrant backgrounds and to improve education outcomes of students from a socially disadvantaged background.

### Belgium

The Flemish Community (BE fl) will implement reforms at all levels of education, including dual learning, starting in September 2019. The French Community (BE fr) will also implement school reforms, starting with changes to governance, then the new extended common curriculum and reforming initial teacher education from September 2020. Education spending in Belgium is among the highest in the EU, but educational outcomes are comparatively low, suggesting room for increased efficiency and effectiveness. To reduce inequality and improve outcomes, teachers need more support to manage diversity in the classroom. Tertiary educational attainment is high but disparities remain between regions and groups.

### Bulgaria

The modernisation of the education and training system continues while quality, labour market relevance and inclusiveness remain challenging. Demographic trends and rising skill shortages suggest that Bulgaria needs to invest better in the skills of its current and future workforce. The need to upskill and reskill the adult population is high while participation in adult learning is low. The status of the teaching profession is low, and the teacher workforce is ageing. Salaries are being increased as a means to boost the attractiveness of the profession. Steps have been taken to increase the labour market relevance of vocational education and training (VET).

### Croatia

Pilot implementation of curricular reform and ambitious preparations for full implementation are under way. Reforms are under way in vocational education and training. Participation in early childhood education and care is held back by shortages of teachers and places. Plans to expand the very short average instruction time could help to improve low education outcomes.

### Cyprus

The teaching profession is highly attractive. Reforms to upgrade it are promising but need to be sustained and expanded. Reforms are implemented to foster high-quality public early childhood education and care. However, provision is insufficient for the early years. Tertiary education attainment has risen further but underutilisation of skills remains a challenge given the specific features of the Cypriot labour market. Measures have been taken to upgrade vocational education and training and adult learning, but attractiveness of both sectors and participation in them remain low.

### Czechia

Czechia continues to make vocational education and training more relevant to the needs of the jobs market. Authorities are making good use of EU funds to support reforms. Inclusive education is progressing but measures targeted at Roma remain limited. The attractiveness of the teaching profession remains low.

### Denmark

Changes to university education are making it more flexible and labour market friendly, but the need for more STEM graduates remains. The number of apprenticeships has been increased and measures are being taken to promote adult learning. Reduced education spending is having an impact on schools and universities. There is considerable local variation in the education performance of young people from migrant backgrounds.

### Estonia

Estonia is developing an education strategy for 2021-2035, aiming to bring gradual changes to the system to respond to changes in the labour market and society. Due to demographic trends and

the limited responsiveness of the education and training system to labour market needs, aligning skills supply and labour demand remains a challenge. The ageing of the teaching population coupled with the low attractiveness of the teaching profession are a long-term challenge for the functioning of the education system. Participation in adult learning has reached a record high but the need for upskilling and reskilling remains high.

### **Finland**

While teaching is a prestigious and attractive profession, there are teacher shortages for kindergarten and special needs education. There has been some growth in education inequalities, and spending on education has fallen. New policy measures aim to improve the quality, effectiveness and internationalisation of higher education. Demand for graduates in Information and Communications Technology (ICT) is high and difficult to meet. Implementation of vocational education and training reform is ongoing, and reforms are planned to foster adult learning.

### **France**

Work continues on improving educational outcomes and reducing inequalities, with support for teaching staff and funding measures. A new law on education extends the length of compulsory education and training to 3-18. Authorities are faced with the challenge of combining the rapid pace of reforms with the need to consult stakeholders to ensure good ownership and optimal impact. Implementation of the vocational education and training reform is in full swing.

### **Germany**

Germany has announced significant investments in digitalisation, higher education and research in the decade ahead, but as well in school education. Germany is preparing for fundamental change in the skills of its workforce by carrying out digital initiatives and by refocusing the system of adult learning. The teaching workforce is aging and Germany faces a challenge to replace a large number of teachers. Young people from disadvantaged socio-economic and/or migrant backgrounds continue to lag behind in educational attainment.

### **Greece**

The teaching profession is highly attractive in Greece but opportunities and incentives to improve professionalism are lacking. Education expenditure is lower than in most EU countries and largely spent on salaries. Early school leaving has been further reduced, particularly in rural areas. Finding employment after education remains difficult, including for highly qualified people. Measures to tackle the brain drain of tertiary graduates are being implemented but internationalisation of Greek universities is underdeveloped.

### **Hungary**

Recent measures have raised the qualification levels of staff in early childhood education and care. Measures to reduce performance gaps between pupils have been strengthened. Admission conditions for entry to higher education have been made more restrictive. A new medium-term strategy aims to modernise vocational education and training and adult education.

### **Ireland**

Ireland has a strong framework to ensure highly qualified teachers and further plans to meet emerging needs, including teacher shortages. Early school leaving has continued to decline, and participation in early childhood education and care is to be supported by new national schemes. Despite increased public spending on education, investment in higher education has not kept up with rising student numbers. Ireland implements initiatives aimed at upskilling and increasing adult participation in learning and training but the numbers of low-skilled adults in the population remain sizeable.

### **Italy**

Italy invests well below the EU average in education, particularly in higher education. The share of teachers satisfied with their jobs is among the highest in the EU, but only a small share believe that theirs is a valued profession. Compulsory work-based learning in vocational education and training could help provide more structured training for apprentices and ease the transition from education to work. The level of tertiary educational attainment is low, and the transition from education to work remains difficult, even for highly qualified people.

### Latvia

Latvia has already met and exceeded its Europe 2020 education targets. Latvia should achieve further improvements in learning outcomes through the new competence-based curriculum, a stronger individual approach to students at risk and support for inclusion of students with special educational needs. Enrolment in vocational education and training (VET) is increasing and the employment rate of VET graduates is improving, although both remain below the EU average. In higher education, a gradual increase in investment and incremental changes in quality assurance are welcome, but the sector remains fragmented and international competitiveness low.

### Lithuania

Current trends in student population and teacher workforce call for a comprehensive strategy to manage teacher supply and demand. Improving key competences and relevant skills remains a priority at all levels. Further development of monitoring and evaluation systems may help improve the quality of education and training. Measures have been put in place to increase the education system's overall efficiency, but further efforts are needed to ensure their implementation. Policy measures to address low participation in adult learning are lacking.

### Luxembourg

In 2018, more flexible entry requirements for the recruitment competition for early childhood and primary education teachers attracted more candidates. Pupils' performance is heavily influenced by their ability to cope with the trilingual system. A reform of the orientation process at the end of primary education may have stopped a trend whereby many pupils were being guided to the lowest track in secondary education. Employment rates among recent graduates from all types of education are significantly higher than the EU average.

### Malta

Work is underway to improve the quality of teaching and the attractiveness of the profession. Improving the quality of investment in education and developing monitoring and assessment are key challenges. Increased participation in early childhood education and care and the new secondary system may help reduce the number of early school leavers. While participation in tertiary education is increasing, its labour market relevance is still a challenge.

### Netherlands

The early school leaving rate is below the Europe 2020 national target but has slightly increased. The Netherlands faces an increasing shortage of teachers, both in primary and secondary education. The 2019-2022 Quality Agreements aim to improve the quality of vocational education and training. Dutch tertiary education increasingly attracts foreign students.

### Poland

Early school leaving continues declining and participation in early childhood education and care among children under 3 remains low. The higher education reform has been launched, bringing major changes to the functioning of higher education institutions. Implementing the 2017 school system changes is causing organisational, financial and curricular challenges. Further challenges relate to teachers' pay, emerging shortages, and initial and continuing training. Participation in adult learning remains low.

### Portugal

Teachers are satisfied with their jobs, but the ageing teacher population, the high proportion of non-permanent staff and weaknesses in induction and continuing professional development remain challenging. Investment to upgrade infrastructure is insufficient, particularly for early childhood education and care in metropolitan areas. Regional disparities in education outcomes, grade repetition and early school leaving rates are improving. Tertiary educational attainment has grown but business demand for ICT specialists exceeds supply. There is a significant proportion of low qualified adults while participation in adult learning remains low.

### Romania

Concrete ideas have been presented for major reform of the education and training system. Clear steps need to be taken for the implementation of the reform. Public spending on education is low in EU comparison, while the sector's investment needs are high. Any major reform is likely to require additional funding linked to stronger equity and efficiency mechanisms. Better support for teachers – in particular by redesigning initial teacher education and strengthening continuing professional



development – can help improve quality and equity. Efforts were made to expand dual education. Participation in adult learning remains low despite the high need for upskilling and reskilling.

### **Slovakia**

Slovakia is improving early childhood education and care, which is particularly positive for children from deprived families. Slovakia is taking a more strategic approach to lifelong learning, upskilling and reskilling. The early school leaving rate has continued increasing since 2010, approaching 14% in Eastern Slovakia. Investment in education and training is insufficient, and this is reflected in teachers' still low salaries despite recent increases.

### **Slovenia**

Enrolment in early childhood education and care is approaching the EU benchmark. The proportion of Slovenian upper secondary students enrolled in vocational education and training is one of the highest in the EU, and the employment rate of such graduates is high. There are enough new entrant teachers but large numbers are approaching retirement and shortages already exist in certain categories. Tertiary educational attainment is high, but the differences between men and women and the native-born and foreign-born population are large.

### **Spain**

The teaching profession is attractive, but working conditions differ among regions and between public and private education systems. Private spending in education is significant, while public spending is static compared to GDP. Planned reforms, reflecting political uncertainties, have been slowed down. The process to modernise vocational education and training is ongoing. Adult participation in education is slowly rising.

### **Sweden**

Tertiary educational attainment and graduate employment rates are high. The population's digital skills are among the best in the EU. There is a serious teacher shortage, and a large number of teachers lack formal qualifications. School segregation and inequality are serious and growing concerns.

### **United Kingdom**

Efforts are being made to tackle the high proportion of teachers leaving the profession. In England, school academies are growing in number but many are facing financial pressures. The consequences of Brexit for UK higher education are unclear but policy responses to address the potential loss of EU research funding and reduced student inflows will be needed. England will introduce new qualifications as part of ongoing reforms of upper secondary VET.



## **FINDING INFORMATION ABOUT THE EU**

### Online

Information about the European Union in all the official languages of the EU is available on the Europa website at: [https://europa.eu/european-union/index\\_en](https://europa.eu/european-union/index_en)

### EU publications

You can download or order free and priced EU publications at: <https://publications.europa.eu/en/publications>.

Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see [https://europa.eu/european-union/contact\\_en](https://europa.eu/european-union/contact_en)).

