



European Training Foundation

# BOSNIA AND HERZEGOVINA

EDUCATION, TRAINING AND EMPLOYMENT  
DEVELOPMENTS 2020



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# KEY POLICY DEVELOPMENTS IN EDUCATION, TRAINING AND EMPLOYMENT (SEPTEMBER 2019–AUGUST 2020)

Bosnia and Herzegovina is a federal republic made up of two entities – the Federation of Bosnia and Herzegovina (hereafter referred to as the Federation) and the Republika Srpska – and a self-governing district, Brčko, which is part of both entities. The Federation comprises 10 cantons. At national level, education and employment developments are coordinated by the Ministry of Civil Affairs. The multi-level governance structure impedes overall socioeconomic planning and development, including in relation to an integrated economy and a coherent education space. Responsibility for education and employment is spread across 13 ministries and a number of executive agencies.

While Bosnia and Herzegovina has seen modest but sustained growth in its overall economy in recent years, this has not translated into sufficient jobs. Unemployment stands at just under 16% and is twice that of the European Union (EU) average. Young people and women feature particularly in the jobless figures, with youth and female unemployment at 33.8% and 18.8%, respectively. The youth unemployment rate, in particular, underlines a poor alignment of the education system with the economy, while opportunities for adult learning are underdeveloped.

The 2020 COVID-19 pandemic is expected to exacerbate the unemployment figures. While all governments have introduced job retention schemes, it remains unclear as to their sustainability, particularly in light of the pandemic stretching into 2021–2022. Preliminary data for the first quarter of 2020 already highlights a 0.5% fall in employment. Meanwhile, in response to the COVID-19 mobility restrictions, the education authorities managed to maintain education services by way of remote learning provision, which has generated policy reflection on digital learning developments.

The overall key challenges for the education system remain: a) a commitment to implement a common framework curriculum; b) effective interfaces between education and business; and c) education budgets that are currently focused primarily on personnel and administrative costs at the expense of quality assurance and innovation. The outcomes of Bosnia and Herzegovina's first Programme for International Student Assessment (PISA) particularly underline the quality concerns for education.

A key development in 2020 was the adoption by the Council of Ministers of a strategy to promote entrepreneurship as a key competence in accordance with the European Entrepreneurship Competence Framework. Other developments include: a) a state-wide vocational education and training (VET) strategy agreed at working level to be put to education ministers in autumn 2020; and b) an agreement to elaborate a state-wide employment strategy, expected to be completed in spring 2021. Steps to implement both strategies reflect specific recommendations made by the European Commission following its decision in 2019 to hold back on the next phase of enlargement preparation for the country, given the weak developments in its overall policy and institutional environment.

# 1. KEY DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

The most recent census in Bosnia and Herzegovina (2013) puts the overall population at 3.5 million, of which just over 70% are of working age (15–64 years). Of these, 11% are young people (15–24 years). The ethnic make-up of the population, which reflects the overall entity and governance framework within the country, is as follows: the Bosniak (50.1%) and Croat (15.4%) communities, which make up the Federation of Bosnia and Herzegovina, and the Serb community (30.8%) within Republika Srpska.

An international human capital index ranks Bosnia and Herzegovina as 58th out of a total of 157 countries. The index shows that in 2020 children in Bosnia and Herzegovina can expect to complete an average of 11.7 years of schooling by the age of 18. However, this is only equivalent to 7.8 years of effective education when the quality of learning is taken into account. Adult illiteracy stands at 2.82% (Pranjić & Račić, 2020). Overall, a child born in Bosnia and Herzegovina in 2020 will be only 58% as productive in adulthood compared to a child who has enjoyed a complete education (World Bank, 2020).

Overall, the economy has been showing slow but sustained growth in recent years, including improved employment, with the Bosnia and Herzegovina government projecting an increase of 3.4% in gross domestic product (GDP) in 2020 (OECD, 2020). Important sectors of the economy, from the perspective of their export potential, include metals, minerals, wood processing and paper (Krajišnik & Popović, 2020). Tourism accounts for a rising share of GDP and the sector has been an increasingly important generator of revenue and jobs. The COVID-19 health crisis, however, has reversed this upward trend in the economy. International estimates suggest a negative GDP growth rate (-6.5%) (IMF, 2020) following a downward trend in industrial production, retail and trade. Employment is also adversely affected. Data available for the first quarter of 2020 points to a 0.5% fall in employment, with the number of registered unemployed people increasing by 5 760 (European Commission, 2020a).

Adding to the human capital challenges, demographic changes are set to pose particular problems for the Bosnia and Herzegovina economy in the coming years. On top of declining birth rates, the percentage of young people, as a proportion of the overall population, dropped by 10% between 2010 and 2019. The emigration of young people, in particular, to the European Union (EU) in search of work presents another challenge to Bosnia and Herzegovina, as the country will increasingly rely on younger human capital for sustained growth.

The number of people leaving increased from 28 000 in 2013 to 44 700 in 2018 (WFD, 2020). Some 87% of people are either considering or are already planning to emigrate (Eurostat, 2020). With the onset of the COVID-19 health crisis, however, there is anecdotal evidence of returnees, given the rise in unemployment in host countries. This will add to growing unemployment numbers in Bosnia and Herzegovina. Secondly, a fall in remittances from Bosnia and Herzegovina workers abroad is likely, due to precariousness in employment caused by COVID-19 in host countries.

Meanwhile, internal migration data for Bosnia and Herzegovina shows a downward trend (Agency for Statistics, 2018a). However, labour market information systems do not comprehensively capture data on mobility of labour within Bosnia and Herzegovina to allow for analysis, forecasting or planning.

## 2. EDUCATION AND TRAINING

### 2.1 Trends and challenges

This section provides an overview of key data and developments in education and training. It also highlights a number of major challenges for the sector.

Table 1 presents data on schools and pupils for the period 2016 to 2019. Secondary school data is also shown as a percentage and is subdivided into general and vocational streams (a smaller number of schools cater for children with special needs, specific religious groups and arts education). Data for secondary education includes vocational education<sup>1</sup>.

**Table 1: Schools in Bosnia and Herzegovina: Breakdown by teachers, pupils and school type**

Education level	Frequency	School year		
		2016–2017	2017–2018	2018–2019
Primary	Pupils	287 694	282 614	280 018
	Schools	1 840	1 817	1 803
	Teachers	23 811	23 811	24 175
Secondary	Pupils	126 965	124 368	117 475
	Schools	311	311	311
	Teachers	12 607	12 615	12 551
Type of secondary school	General	24.10%	23.79%	22.75%
	Vocational	72.90%	73.16%	74.05%
	Other	3.00%	3.10%	3.20%

Source: Adapted from GIZ (2020)

Two points in particular stand out from the figures. Firstly, despite the declining pupil numbers associated with demographic changes, the total number of teachers has been increasing, particularly in primary and vocational education (the number of vocational education and training (VET) teachers has increased by 12% since 2006). This raises questions of efficiency. Secondly, while teacher-to-pupil ratios have been rising, questions remain as to the overall quality of learning outcomes with VET enrolments also declining (VET pupils as a percentage of total secondary education pupils fell by 1.4% between 2010 and 2019).

**Table 2: Bosnia and Herzegovina school enrolments by entity, 2018**

Location	Preschool	Primary school	Secondary education			Total no. of pupils	Share of total pupils
			General	VET	Other		
Federation	15 093	185 032	20 253	57 838	3 363	281 579	67%
Republika Srpska	10 240	90 995	8 875	30 831	125	141 066	33%
Bosnia and Herzegovina	25 333	276 027	29 128	88 669	3 488	422 645	100%

Source: Adapted from World Bank (2019) and ETF (2020a)

<sup>1</sup> Technical schools provide four-year courses and a direct pathway to higher education. Vocational schools provide three-year courses and additional examinations are necessary to access higher education.

Overall, 76% of secondary schools are vocational: there are 148 vocational schools in the Federation, 84 in Republika Srpska and a further 3 vocational schools in Brčko District. A breakdown of total enrolments in the two entities is provided in Table 2, which shows significantly higher numbers of secondary pupils in vocational education. The gender breakdown in vocational education is 60/40 male/female.

**Table 3: Comparative data on EU 2020 education targets**

	Bosnia and Herzegovina (%)		EU27 (%)		EU 2020 target (%)
	2010	2019	2010	2019	2020
Early leavers (% aged 18–24)	7.9	3.8u	13.8	10.2	< 10
Lifelong learning (% aged 25–64)	2.8	2.0	7.8	10.8	≥ 15
Tertiary education attainment (% aged 30–34)	11.8	n/a	37.3	40.3	≥ 40
Low achievers: PISA reading (% aged 15)	n/a	53.7	19.7	21.7	< 15
Low achievers: PISA mathematics (% aged 15)	n/a	57.6	22.3	22.4	< 15
Low achievers: PISA science (% aged 15)	n/a	56.8	17.8	21.6	< 15

Note: PISA data relates to the 2018 assessment. n/a = not applicable.

Source: Eurostat, OECD, World Bank, Agency for Statistics of Bosnia and Herzegovina.

The share of early leavers from education and training in Bosnia and Herzegovina almost halved in the decade leading up to 2019. Bosnia and Herzegovina is well ahead of the EU as a whole as it is just shy of its 2020 early-leaving target of 10%; however, it lags considerably behind EU countries when it comes to adult learning. With an EU 2020 target of 15%, five times more people across the EU participated in lifelong learning in 2019 compared to Bosnia and Herzegovina. With overall rates for the EU up 3% in the last decade, data for Bosnia and Herzegovina is down almost 1%.

In terms of numbers completing tertiary education, the available data underline a steady upward trend in tertiary education attainment – up almost 12% since 2010 to 23.5% in 2018. While the EU countries have just crossed the line in meeting the 2020 target of 40% tertiary attainment, Bosnia and Herzegovina’s rate approximates that of Romania (25.8%) and Italy (27.6%).

The results of Bosnia and Herzegovina’s first participation in the PISA assessment underscore serious concerns about the quality of education in general: well over half of 15-year-olds were low achievers in reading, writing and mathematics, compared to a fifth of their counterparts in the EU.

These challenges for education are reflected in how the public view the sector. Some 44% of people are unhappy with how education has prepared them for the economy, while nearly 60% of businesses

say they are unable to fill vacancies due to the lack of skills of job applicants (RCC, 2020b). Overall, the general public consider investment in education to be a top priority (EBRD, 2016).

In terms of finance, some 4.6% of the total Bosnia and Herzegovina budget goes to education. The lion's share (91%) is consumed by teaching and administrative costs, leaving little room for investment in infrastructure, quality improvements or innovation. Despite vocational education being generally more expensive (e.g. costs associated with laboratories and work-based learning), the financing of all secondary schools is on a per-head basis. The modernisation of education relies primarily on donors, with the majority of financing targeting vocational education. Donor investment is generally scattered across entities and cantons with little opportunity for state-wide application. Finally, a more drawn-out COVID-19 crisis may put additional fiscal pressure on Bosnia and Herzegovina governments with financing diverted to areas such as health, unemployment and business support. Education budgets should be ring-fenced.

A primary challenge for education developments in Bosnia and Herzegovina is that the decentralised governance arrangements mean decision-making and financing of education financing is spread over a large number of administrations. The complex policy environment provides particular challenges for the coordination of education across the country and overall cost efficiency. While good efforts have been made by the Ministry of Civil Affairs to build synergies and coherence within the overall education system by way of framework legislation and strategy building, the political system has engendered a culture of mistrust and poor cooperation, stalling wider progress on the education agenda.

Secondly, while developing a common core curriculum was an important benchmark for all education authorities, it has not yet been comprehensively integrated across all education systems. Set against the disappointing results of Bosnia and Herzegovina's first PISA assessment in 2018, and with its emphasis particularly on key competences including reading, writing and mathematics, a stronger commitment to the common core curriculum provides an opportunity for cross-referencing domestic education challenges with OECD countries' education systems. The country should continue with the PISA assessment cycle in 2021 and where parents' engagement into the assessment is an option. This would provide a specific opportunity for parents in Bosnia and Herzegovina to directly contribute to educational policy.

Both pre-service and in-service teacher training are underdeveloped. While pedagogic institutions, supported primarily by international donors, fill a gap in in-service teacher training, there remains no quality assurance or accreditation mechanisms for in-service teacher training. Meanwhile, pre-service teacher training is ignored in the wider education development and donor dialogue framework 'leaving young teachers unprepared for work' (USAID, 2018). The COVID-19 crisis, in particular, has highlighted challenges for the teaching profession in adapting to more innovative methods of teaching and learning involving information and communications technology (ICT).

Specifically, in relation to qualifications, a baseline qualifications framework has been agreed, but has not been fully implemented. Furthermore, an inter-sectoral committee (a qualifications policymaking body) has not met since 2015. An important benchmark for qualifications development in Bosnia and Herzegovina also remains unmet – cross-referencing of the country's qualifications with the wider European Qualifications Framework.

Finally, while the COVID-19 pandemic has caused considerable disruption to the education systems in Bosnia and Herzegovina, with most schools being forced to move to online learning, the crisis has led to policy reflection as to ways forward for education. The Ministry of Civil Affairs has called for special emphasis to be placed on the digitalisation and distance learning on Bosnia and Herzegovina as a precondition for a flexible and effective response to future interruptions in education (MoCA, 2020)

## 2.2 Education and training policy and institutional setting

### *Institutional framework and governance arrangements*

'It is difficult to refer to the education system in Bosnia and Herzegovina as a single system, it is more a network of different [education] systems within the context of a single state' (ETF, 2019a). A complex governance arrangement for education in Bosnia and Herzegovina comprises 14 institutions responsible for overseeing education developments (13 ministries and a state-level education agency), decentralised in two entities, Republika Srpska and the Federation of Bosnia and Herzegovina, both of which have an education ministry. The Federation further comprises 10 cantons (see Annex 1), each with an education ministry. Education affairs in a third administrative area – Brčko District – are overseen by a dedicated education department. Overall coordination of education across Bosnia and Herzegovina, including liaison at international level, is undertaken by the Ministry of Civil Affairs at state level. Each of the administrations is responsible for enacting its own education legislation and financing education.

Three state-wide agencies support the implementation of education policies: a) Agency for the Development of Higher Education and Quality Assurance; b) Agency for Pre-Primary, Primary and Secondary Education (APOSO); and c) Centre for Information and Recognition of Qualifications in Higher Education.

A Conference of Ministers of Education provides a dialogue framework on state-wide education affairs with decisions taken by a state-wide Council of Ministers. A Rectors' Conference acts as an advisory body for the implementation of the reform of higher education.

This governance paradigm presents challenges for a state-wide vision and objectives for education. The complexity of education governance means that there are over 70 education policy documents (framework laws, strategies, legislation, guidelines). The Bosnia and Herzegovina authorities recognise the weakness of cooperation and coordination and the risk that this poses in the country's overall effort to ensure education plays a role in building competitiveness and employability (Bosnia and Herzegovina, 2020).

Ten pedagogical institutions operate across the two entities, providing support and in-service teacher training to schools. Pre-service teacher training is provided by eight public universities.

### *Legislative and strategic provisions*

Given the decentralised governance arrangements, education legislation is addressed at three levels: a) state level (framework legislation); b) entity level (Republika Srpska and Federation of Bosnia and Herzegovina); and c) cantonal level, including Brčko District. Vocational education is addressed within general education. This section addresses state-level education.



The Ministry of Civil Affairs has drafted five framework education laws (see Annex 2). More specifically, in the area of VET, the 2003 Framework Law on Primary and Secondary Education defines the principles, levels and structure of secondary education. The 2008 Framework Law on Secondary Vocational Education and Training addresses a) the role of the social partners and the focus on the needs and demands of the economy; b) the autonomy of vocational schools in response to local economic needs; c) the potential for cooperation between schools whilst retaining their autonomous legal status; d) the diversification of training offer for new target groups (e.g. adults) and the potential for income generation by schools. The VET framework legislation has been adopted in or adapted to local legislation in Republika Srpska, in seven cantons in the Federation and in Brčko District (ETF, 2019a).

There is no specific legislation governing apprenticeships or work-based learning in Bosnia and Herzegovina. Draft legislation on dual education exists for Sarajevo Canton but it has not yet been adopted.

The Ministry of Civil Affairs also supports the education authorities in addressing themes of a common interest, resulting in state-wide supporting instruments. The most recent developments in vocational education include a) a strategy for entrepreneurial learning, including the key competence of entrepreneurship; and b) priorities for VET. These were developed by working groups comprising experts from all the education systems in Bosnia and Herzegovina (see Annex 2). Both documents are designed to support further harmonisation of VET in Bosnia and Herzegovina with wider developments in the EU.

While the Conference of Education Ministers provides a forum for exchange on issues common to all education authorities, it meets irregularly. Unless the conference has a defined agenda with regular sittings, an opportunity to promote coherence and synergies across the education systems is missed. A political commitment on the part of all education authorities to cooperate will be essential to achieve coherence and synergy (USAID, 2017).

#### *Data*

While a legal framework allows for a systemisation of education data from across all parts of Bosnia and Herzegovina, fragmentation and weak cooperation frustrate efforts to measure and monitor education inputs and outcomes, particularly in terms of pupil learning and the overall performance of schools (ETF, 2019a). While education data is compiled by entity offices and shared at state level with the Bosnia and Herzegovina Agency for Statistics (BHAS), without pupil- and teacher-specific data, the gaps in intelligence do not allow for meaningful analysis (World Bank, 2019).

The monitoring of education developments and data on learning outcomes is underdeveloped (USAID, 2017). Despite challenges with its data, Bosnia and Herzegovina participated in the 2018 PISA review. The results highlight that pupils following vocational courses in Bosnia and Herzegovina fall considerably behind their counterparts in general education. The study also highlights how the achievements of 15-year-olds in Bosnia and Herzegovina are well below OECD averages, estimated as three years of schooling (OECD, 2019).

As part of its overall convergence towards EU policies, the European Commission recommends that Bosnia and Herzegovina continue to participate in PISA and other internationally comparative studies (European Commission, 2020a). The next PISA assessment is due in 2021. Continued participation

should act as a prompt to the Bosnia and Herzegovina authorities to improve education metrics as a precondition for more evidence-based policymaking as well as the design and implementation of reforms in the sector.

### *Curriculum*

A Common Core Curriculum developed by the APOSO, a state-level body, includes a set of framework learning outcomes. The Common Core Curriculum provides an important basis for establishing coherence across the education systems. It will also be key in ensuring that pupils can access the education systems and to move between them. Finally, it will ensure the agility, flexibility and adaptability of young people to changing labour market requirements. It includes 10 competence areas<sup>2</sup>.

One of the strengths of the framework curriculum is that it reflects the EU's key competence framework, including reading, mathematics and science (European Commission, 2019b). With well under half of all 15-year-olds under-achieving in these three subjects (as shown in the 2018 PISA assessment), Bosnia and Herzegovina falls well short of the EU 2020 benchmark (European Council, 2007) of less than 15% on each subject (OECD, 2019).

A weak point of the Common Core Curriculum is that its transposition into entity/cantonal curricula is selective, particularly for subjects that are ethnically sensitive such as languages, literature and history (World Bank, 2019). In contrast, cooperation and coordination among the education authorities on the entrepreneurship and digital competences is well developed, with a working document agreed on ways forward for the two competences (Ministry of Civil Affairs, 2018). Between 2020 and 2022, an EU-supported programme focusing on the entrepreneurship and digital competences will work with pedagogic institutions across Bosnia and Herzegovina to interface existing curricula and teacher development programmes with the EU entrepreneurship and digital competence frameworks.

In applied VET, apprenticeships and other forms of work-based learning are underdeveloped in Bosnia and Herzegovina due to a lack of financing (USAID, 2017). Most activities are supported by donors and targeted at selected cantons and economic sectors. Two research findings in particular suggest that work-based learning requires more policy attention. Firstly, a tracer study of VET programme graduates underlined how 67% of vocational trainees considered that practical training was insufficient in their courses (GIZ, 2018). Secondly, 44% of businesses in Bosnia and Herzegovina plan to introduce internships or apprenticeship programmes – this is the highest proportion of businesses interested in work-based learning in South Eastern Europe (RCC, 2020b).

Moving forward, more consideration is required of regulatory factors associated with work-based learning. These include a) capacity of in-company trainers; b) financial and non-financial support for businesses accommodating apprenticeships, including remuneration of trainees and cost-sharing arrangements between schools and businesses; c) social protection and insurance arrangements for trainees; and d) accreditation of companies offering apprenticeships (ETFb, 2020).

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<sup>2</sup> The 10 competence areas are: linguistic and communication competence in the mother tongue; linguistic and communication competence in foreign languages; mathematical literacy and competence in science and technology; information technology literacy; learning to learn; social and civic competences; self-initiative and entrepreneurial competences; cultural awareness; creative and productive competences; physical and health competences.

### *Teacher training*

The education legislation for the various governance levels in Bosnia and Herzegovina defines minimum standards for pre-service teacher training, namely a university degree and a professional teaching qualification. Vocational teachers are also required to have a degree in their respective field as well as training in pedagogy and didactics. Pre-service teacher training is provided by universities but, due to the high degree of autonomy of universities, the quality of teacher training varies (USAID, 2017).

In-service teacher training is provided primarily by pedagogic institutions, which are canton- or entity-specific; the training lacks the capacity to promote teacher development (World Bank, 2019). Furthermore, teacher development is almost entirely funded by donors, raising questions of efficiency and sustainability (ETF, 2020b). Nonetheless, state-wide efforts by the APOSO to support teacher development go some way to establishing general standards and procedures for teacher training (APOSO, 2019).

Peer-to-peer learning between teachers or in groups is underdeveloped and pedagogic institutions do not have the capacity to support teacher development. Nevertheless, there are examples of teachers using online platforms to exchange experiences and materials (ETF, 2019b).

With the professional development of teachers regulated by each education authority, specific requirements for the professional development and performance appraisal of teachers remain to be established. More analysis of policies that address the teaching profession and the institutions supporting them, particularly given the decentralised responsibility for teacher development, is required (World Bank, 2019).

### *Qualifications and quality assurance*

Bosnia and Herzegovina's baseline qualifications framework was adopted by the Council of Ministers in March 2011. Qualifications are currently derived primarily from occupational standards, but the Bosnia and Herzegovina qualifications framework provides an opportunity to adapt the VET system to better meet the needs of employers by adopting a more sector-specific approach to qualifications in line with the needs of the economy.

The Bosnia and Herzegovina qualifications framework has only been partially implemented and no qualifications have been registered. Many existing qualifications are not based on learning outcomes, nor do they relate to standards. Training providers, employers and learners still do not use the framework. Nonetheless, newly developed VET and higher education qualifications are based on learning outcomes and standards. Four qualifications have been formally included in the framework.

The implementation of the baseline qualifications framework is overseen by an inter-sectoral committee chaired by the Ministry of Civil Affairs. The committee has not met since 2015. When it does sit, it should include discussions on sector-specific approaches to qualifications. A further milestone to be met by the Bosnia and Herzegovina authorities is to reference the baseline qualifications framework to the principles and criteria of the wider European Qualifications Framework.

The validation of non-formal learning is part of the qualifications' framework action plan, but its implementation is currently limited. EU support to develop a system-based validation of non-formal learning is scheduled for the period 2020–2022.

There are no quality assurance mechanisms in place to systematically monitor the quality of education inputs, outputs or outcomes (World Bank, 2019). However, the first steps towards a state-wide quality assurance framework for VET have been taken with a framework proposal developed in 2018. This borrows from European Quality Assurance in VET (EQAVET). As with the baseline qualifications framework, the quality assurance framework is designed to bring together the various education authorities and to act as a bridge to broader European developments and EU quality assurance networks (ETF, 2019a). The proposal includes the furnishing of data by all education authorities (cantons, Republika Srpska and Brčko District). The Bosnia and Herzegovina education authorities have not yet agreed to this proposal.

Finally, having been forced into remote learning during the COVID-19 pandemic introduces a further dimension to the quality of education provided in 2020. While the education authorities made good efforts to maintain education provision during the health crisis (UN, 2020a), it is unclear what the overall impact of the education lockdown in terms of loss of learning is and how successful the return to 'normal' schooling for the 2020–2021 academic year has been. Evidence points to disproportionate effects on rural and minority communities (especially the Roma community), which have been further marginalised and disadvantaged due to a lack of equipment and online access (OSCE, 2020). Work-based learning was particularly affected as schools and businesses suspended apprenticeships while school-based learning adapted to online provision (UN, 2020b).

Moving forward, in addition to state-wide approval of the quality assurance framework which will require a legal basis, staff development measures will be important to address the administrative, legal and practical implementation of quality assurance in VET (ETF, 2020b).

### *Financing*

At 4.6% of GDP, Bosnia and Herzegovina spends more money on education than other countries in the region but less than the 5.1% spent by the EU as a whole. Despite this relatively high percentage of investment in education, Bosnia and Herzegovina's education outcomes are among the weakest in South Eastern Europe (GIZ, 2020). Overall, systemic inefficiencies in education expenditure, perpetuated by the complex governance arrangements for education, undermine the potential to improve the quality of the learning experience and learning outcomes (World Bank, 2019).

In the Federation, 91% of the education budget goes on personnel; the figure is 87% in Republika Srpska. While enrolments are declining, the number of teachers has been increasing. Furthermore, nearly a third of staffing costs are accounted for by non-teaching staff. This raises questions about overall spending and the efficient use of education budgets (World Bank, 2019). This spending detracts from capital investment that could improve areas such as teacher development, addressed above.

In total, there are 13 separate education budgets in Bosnia and Herzegovina. Schools are financed primarily by cantonal budgets in the Federation and the central entity budget in Republika Srpska. Forecasted education budgets could be at risk as a more drawn-out COVID-19 crisis will most likely put additional fiscal pressure on Bosnia and Herzegovina governments, with financing diverted to areas such as health, unemployment and business support. There is no state-level education budget. State-level coordination activities by the Ministry of Civil Affairs are supported primarily by donors.

Of total education expenditure, some 48% is allocated to primary education, with 43% and 12% allocated to secondary and tertiary education, respectively. At 89%, the lion's share of the education budget is taken up by personnel costs (teaching, administrative and maintenance staff) compared to 22% in the EU. This diverts resources away from areas such as staff development and technology support (World Bank, 2019). This is particularly pertinent given that vocational education costs outweigh those of general education (GIZ, 2020). Furthermore, as a result of declining demographics school enrolment numbers are falling: there was a 3% drop in primary enrolments in 2018 compared to 2016 and 37 schools were closed during the same period. At the same time, the number of teachers is increasing, prompting questions as to the overall efficiency implications for education budgets. In 2018–2019, 74% of secondary school teachers were engaged in VET, an increase of 1% compared to the previous year, despite a lower number of enrolments (GIZ, 2020).

Private sector financing of VET is voluntary and rare. However, in 2018, the smallest canton, Bosnia Podrinje, introduced compulsory payments for companies engaged in apprenticeship training, including payments for equipment.

## 3. LABOUR MARKET AND EMPLOYMENT

### 3.1 Trends and challenges

Between 2015 and 2019, Bosnia and Herzegovina saw a modest growth in the economy – GDP rose from just over 3% in 2015 to 3.7% in 2018 but tailed off to 2.6% in 2019. This coincided with a drop in unemployment of almost 4% to 15.7% (see Table 4). Meanwhile, the employment rate for the same period rose by 6.5% to just under 50%. This compares to a 2019 employment rate of 73% in the EU, which falls short of its 2020 objective of 75%. The COVID-19 pandemic is expected to exacerbate the 2020 unemployment figures. While all governments introduced furlough schemes in the first phase of the COVID-19 crisis (first to third quarters of 2020), the sustainability of business employment retention schemes remains unclear.

Business surveys point to labour cost-cutting plans such as wage reductions and layoffs (UNDP, 2020). Preliminary data for the first quarter of 2020 points to a 0.5% fall in employment, with the number of registered unemployed increasing by 5 760 people (European Commission, 2020b). Meanwhile, in the absence of specific data on the impact of COVID-19 on working time, wider data from other upper-middle-income economies suggests that some 11% of working hours were lost in the first eight months of 2020 (WEF, 2020a). This has significant implications for the overall productivity of the workforce. On top of this, where remote working options have been implemented, 78% of business leaders worldwide consider that remote working will additionally have a negative impact on productivity (WEF, 2020b).

While the improvement in the employment rate for 20- to 64-year-olds in Bosnia and Herzegovina between 2015 and 2019 broadly reflects the trend within the EU, at 49.7% the country stands well behind the EU's 73.1%, and falls significantly short of the EU 2020 benchmark of 75%. While female employment rates have improved by approximately 6 percentage points in the 5 years up to 2019, only 4 out of 10 women in Bosnia and Herzegovina are in employment compared to nearly 7 in 10 in the EU. Of those who are employed, almost 25% are self-employed. Should the COVID-19 crisis be prolonged, this group is particularly vulnerable, given their limited access to income replacement.

While unemployment dropped 12 percentage points between 2015 and 2019, at just under 16% it is well over twice the EU unemployment rate. One contributory factor to high levels of unemployment are the high social contributions imposed on low-income earners, which are a disincentive to work and result in businesses engaging staff informally (European Commission, 2020d).

In 2019, the female unemployment rate (18.8%) in Bosnia and Herzegovina was more than 5 percentage points higher than male unemployment (13%). This is probably impacted by a) low enrolment in early childhood education, and b) weak provision of elderly care, both of which contribute to women's low employment levels, who predominantly are responsible for family care (ETF, 2019a).

Activity rates for Bosnia and Herzegovina declined over the period 2015 to 2019, down 2 percentage points to 42%, and are considerably lower than the EU activity rate of 73%. While activity rates among women are well below those among men in both the EU and Bosnia and Herzegovina, the difference in activity rates between the sexes is particularly more pronounced in Bosnia and Herzegovina (18.8%) than in the EU (11.4%). This high share of inactivity among women in Bosnia and Herzegovina is most likely due to cultural factors (where women are committed to child rearing and elderly care) and insufficient availability of flexible working arrangements like telework and flexitime. With many Bosnia and Herzegovina businesses and public services, which employ a substantial part of the female workforce, having been forced into remote working as a consequence of the COVID-19 crisis, the question remains as to the likelihood of such working practices being eventually mainstreamed and the potential positive implications for women in the labour market.

**Table 4: Comparative labour market data (Bosnia and Herzegovina and the EU)**

KEY LABOUR MARKET DATA	Bosnia and Herzegovina (%)		EU (%)	
	2015	2019	2015	2019
Employment rate (20–64 age group)	43.2	49.7	69.1	73.1
Employment rate: women (aged 20–64)	32.4	38.0	63.2	67.2
Employment rate: men (aged 20–64)	53.9	61.6	74.9	78.9
Unemployment rate	27.7	15.7	10.1	6.7
Long term unemployment rate	22.6	n/a*	43.5	36.0
Youth unemployment rate	62.3	33.8	21.7	15.0
Female unemployment rate	30.7	18.8	9.5	7.1
Male unemployment rate	25.8	13.6	9.4	6.4
Activity rate	44.1	42.1	77.3	73.4
Activity rate: men	55.1	51.7	69.4	70.1
Activity rate: women	33.5	32.9	57.6	58.7
Young people not in employment, education or training (NEET)	28.1	21.0	16.6	16.4

\* data not available

Source: Eurostat, European Commission, World Bank, ETF, Bosnia and Herzegovina Office of Statistics



While the period 2015 to 2019 saw significant improvements in youth unemployment, down 29.5% to 33.8%, reflecting such factors as an improving economy, demographic changes and emigration, this figure is still well over twice the EU youth unemployment rate (15%). In 2019, young women in Bosnia and Herzegovina were more likely to be out of work compared to their male counterparts (38% compared to 31%).

The share of long-term unemployed people (i.e. those out of work for at least 12 months), while lower than in the EU according to 2015 data, is estimated by commentators to be around three-quarters of the total number of unemployed people in 2019 (data unavailable). This would approximate EU long-term unemployment rates. One likely result of the COVID-19 crisis will be a rise in long-term unemployment, as those already out of work during the crisis will pass into the long-term unemployment category. Labour market participation rates may also be negatively affected as those seeking work become discouraged.

Informal employment is estimated at 30%. High levels of taxation, including for those on low incomes, disincentivises formal employment. This in turn generates the risk of further marginalisation from mainstream employment and opportunities for training and development (ETF, 2019a). Furthermore, informal businesses and their staff will most likely be particularly affected by the COVID-19 crisis, as they have not been covered by government-supported business and employment schemes.

At 21%, the percentage of young people not in employment, education or training (NEET) continues to improve but it still lags well behind the EU whose NEET rate is just over 16%.

In sum, the low activity rates and high unemployment rates underline significant underutilisation of human resources (ETF, 2019a). This in turn impedes economic growth and contributes to outward migration (World Bank, 2019). The COVID-19 crisis will potentially accentuate unemployment rates with particular implications for active labour market promotion. Furthermore, the employment authorities in Bosnia and Herzegovina would do well to track inactivity rates should a prolonged COVID-19 period set in. Labour market trends from earlier crises show that inactivity rises faster than unemployment, with young people and older workers at higher risk of becoming inactive (WEF, 2020a). A rise in inactivity rates in Bosnia and Herzegovina is likely to make job recovery more difficult.

## 3.2 Employment policy and institutional setting

### *Institutional framework and governance arrangements*

Key state-level institutions governing employment developments include a) the Ministry of Civil Affairs, which coordinates and consolidates employment policy between the two entities and Brčko District and liaises with international organisations; and b) the Agency for Labour and Employment, which monitors international employment standards across the employment services in the entities/Brčko District and supports the Ministry of Civil Affairs, in cooperation with the entities, in defining labour market policy guidelines.

The entities differ in a number of ways when it comes to policy in this area. Employment policy and the organisation of employment services in Republika Srpska is centralised in a labour ministry, while

employment policy in the Federation of Bosnia and Herzegovina is coordinated across all cantons by a federal labour ministry and 10 cantons. The cantons in turn have their own employment policies and employment services. Finally, many municipalities include employment plans within their wider economic development programmes. The self-governing Brčko District includes an employment office providing employment intermediary services.

In terms of social partners, trade union and employer organisations exist at state level (Confederation of Bosnia and Herzegovina Trade Unions and Association of Bosnia and Herzegovina Employers) and entity level. Chambers of commerce across Bosnia and Herzegovina also engage with the governments in human capital policy dialogue. A state-level economic and social council remains to be established. Overall, social dialogue is weak at all levels of government (European Commission, 2020d).

#### *Legislative and strategic provisions*

The key legislative tools for employment policies and supporting institutions comprise a law to establish a state-wide labour and employment agency, whose tasks are summarised above, and a labour law which covers workplace organisation, labour and social rights (see Annex 2).

At policy level, the COVID-19 crisis has demonstrated gaps in employment legislation across both entities in relation to issues such as remote working and job protection.

Efforts to establish a state-wide strategy for employment, and on which EU budgetary sectoral support is conditional, have foundered due to poor cooperation between the entities as well as between Republika Srpska and the state-level Ministry of Civil Affairs. There are indications, however, that state-wide priorities will be defined and agreed in 2021. Key to this is the parallel development of employment strategies in both the Federation of Bosnia and Herzegovina and Republika Srpska in late 2020. Both strategies will form the basis for establishing state-wide employment priorities.

#### *Public employment services*

Employment services have a critical role to play in addressing unemployment, through measures like career counselling, vocational training and job-matching services. However, while a significant share of the employment services' work is absorbed by non-employment related tasks, such as the administration of social benefits (Bosnia and Herzegovina, 2020), there are efforts to reform employment services to enable them to provide more client-driven, active employment support. Republika Srpska, in particular, revised its legislation in 2018 with the objective that employment services would focus resources specifically on active employment measures.

Results from a 2018 adult education survey underline very low participation, with only 8.7% of people aged between 25 and 64 in Bosnia and Herzegovina having engaged in adult learning (Agency for Statistics of Bosnia and Herzegovina, 2018b). Those participating in adult learning are primarily already highly skilled. Key obstacles to adult learning are cost and family commitments. Overall, three out of four adults in Bosnia and Herzegovina state that they do not need additional education and training (ETF, 2020a) which may in part reflect dissatisfaction with the education system on the part of a significant number (44%) of the general population (RCC, 2020a).

While governance provisions impede efforts to establish synergy and uniformity in adult learning provision, community-based initiatives are helping to fill this vacuum. Local partnerships specifically address the employment challenges faced by more vulnerable communities. These partnerships,



comprising municipalities, employment services, vocational schools and local businesses, are grant-funded to train hard-to-employ target groups (e.g. women, young people, minorities, returnees and internally displaced persons) to meet the demands of the local economy. An additional feature of the partnership initiative is the promotion of peer learning with other countries in the region. This borrows from the European Mutual Learning Programme, which is a core pillar of the EU employment strategy. Financed by the EU's Instrument for Pre-Accession Assistance (IPA) programme and with technical assistance from the International Labour Office, a second phase of the project kicks off in late 2020.

Career guidance and counselling are underdeveloped across Bosnia and Herzegovina. The 2020–2022 Economic Reform Programme gives priority to this area for development (Bosnia and Herzegovina, 2020).

#### *Financing*

Expenditure on active employment programmes is low at 0.2% of GDP (ETF, 2020b), but is improving, and has almost doubled since 2013. Finance for active employment surpassed passive employment measures for the first time in 2018 (Bosnia and Herzegovina, 2020). The entities differ in how the money is spent: Republika Srpska offers more training while the Federation of Bosnia and Herzegovina prioritises wage subsidies (ETF, 2020b).

#### *Data*

As in the case of the education data, the fragmented institutional framework frustrates both data and diagnostics, which are essential for good policymaking. Labour market intelligence relies heavily on the resources of the state and entity employment services, while the lack of wider data and information sources (e.g. sector-specific skills intelligence) makes it difficult to assess the skills and qualifications of the market (ETF, 2020b).

Labour force surveys were undertaken annually by the Agency for Statistics of Bosnia and Herzegovina until January 2020, when quarterly surveys were introduced. The survey remains the primary instrument for tracking employment developments at state level while job vacancy statistics are covered by the employment services in the entities.

For further information, please contact Anthony Gribben, European Training Foundation, email: [Anthony.Gribben@etf.europa.eu](mailto:Anthony.Gribben@etf.europa.eu)

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## ANNEX 1.

Government administrations: entities, cantons and administrative district by population size

Cantons in the Federation of Bosnia and Herzegovina	% of population	Population
1. Tuzla Canton	12.6	445 028
2. Sarajevo Canton	11.7	413 593
3. Zenica-Doboj Canton	10.3	364 433
4. Una-Sana Canton	7.7	273 261
5. Central Bosnia	7.2	254 686
6. Herzegovina-Neretva Canton	6.3	222 007
7. West Herzegovina Canton	2.7	94 898
8. Canton 10	2.4	84 127
9. Posavina Canton	1.2	43 453
10. Bosnian-Podrinje Canton	0.6	23 734
<b>Total Federation of Bosnia and Herzegovina</b>	<b>62.8</b>	<b>2 219 220</b>
<b>Republika Srpska</b>	<b>34.7</b>	<b>1 228 423</b>
<b>Brčko District</b>	<b>2.7</b>	<b>83 516</b>
<b>Total population</b>	<b>100</b>	<b>3 531 159</b>

Source: Agency for Statistics of Bosnia and Herzegovina, Census 2013

## ANNEX 2.

### Key state-level legislation and strategies in education and employment

Year	Legislative/strategic instruments
2003	Framework Law on Primary and Secondary Education
2007	Framework Law on Pre-school Education
2007	Law on Agency for Pre-school, Primary and Secondary Education
2007	Framework Law on Pre-school Care and Education
2007	Framework Law on Higher Education
2008	Framework Law on Secondary Vocational Education and Training
2008	Strategic Directions for the Development of Education in Bosnia and Herzegovina (2008–2015)
2011	Baseline Qualifications Framework in Bosnia and Herzegovina
2011	Action Plan for Establishment and Implementation of the Qualifications Framework in Bosnia and Herzegovina (2014–2020)
2013	Strategy for the Development of Vocational Education and Training in Bosnia and Herzegovina (2013–2017)
2014	Common Core Curriculum
2020	Priorities for Entrepreneurial Learning and Entrepreneurship Key Competence in Bosnia and Herzegovina (2021–2030) <sup>3</sup>
2020	Improvement of Quality and Relevance of Vocational Education and Training in Bosnia and Herzegovina (2021–2030) <sup>4</sup>

### Key state-level employment legislation and strategies

Year	Legislative/strategic instruments
2003	Law on Agency for Labour and Employment of Bosnia and Herzegovina
2004	Labour Law in the Institutions of Bosnia and Herzegovina
2021	Bosnia and Herzegovina Priorities for Employment <sup>5</sup>

<sup>3</sup> Adopted by the Council of Ministers on 22 October 2020.

<sup>4</sup> This strategy was submitted by the Ministry of Civil Affairs to the Council of Ministers for formal adoption in September 2020.

<sup>5</sup> The employment authorities of Bosnia and Herzegovina have committed to drawing up state-wide priorities for employment in 2021

## ANNEX 3.

Data includes annual data from 2010, 2015, 2018 and 2019 or the last available year.

	Indicator	2010	2015	2018	2019	
1	Total Population (,000) <sup>(1)</sup>	3,705.5	3,429.4	3,323.9	3,301.0	
2	Relative size of youth population (age group 15-24 and age in the denominator 15-64, %) <sup>C (1)</sup>	20.3	18.3	17.6	17.4	
3	GDP growth rate (%)	0.8	3.1	3.7	2.6	
4	GDP by sector (%)	Agriculture added value	6.8	6.2	5.9	6.1
		Industry added value	22.4	22.5	24.5	23.7
		Services added value	55.6	56.3	54.9	55.5
5	Public expenditure on education (as % of GDP) <sup>(1)</sup>	M.D.	M.D.	M.D.	M.D.	
6	Public expenditure on education (as % of total public expenditure) <sup>(1)</sup>	M.D.	M.D.	M.D.	M.D.	
7	Adult literacy (%)	M.D.	M.D.	M.D.	M.D.	
8	Educational attainment of adult population (aged 25-64 or 15+) (%) <sup>(2)</sup>	Low <sup>(3)</sup>	20.5	17.7	14.8	15.8
		Medium <sup>(4)</sup>	66.2	66.7	68.9	68.9
		High <sup>(5)</sup>	13.3	15.6	16.3	15.3
9	Early leavers from education and training (aged 18-24) (%)	Total	7.9	5.2	5.4 <sup>(6)</sup>	3.8 <sup>(6)</sup>
		Male	7.7	4.8	5.6 <sup>(6)</sup>	4.0 <sup>(6)</sup>
		Female	8.1	5.6	5.2 <sup>(6)</sup>	3.5 <sup>(6)</sup>
10	Gross enrolment rates in upper secondary education (ISCED level 3) (%)	M.D.	M.D.	M.D.	M.D.	
11	Share of VET students in upper secondary education (ISCED level 3) (%)	74.5	74.2	76.2	M.D.	
12	Tertiary education attainment (aged 30-34) (%)	11.8	17.2	23.5	M.D.	
13	Participation in training/lifelong learning (age group 25-64) by sex (%)	Total	2.8	2.3	1.9	1.8
		Male	2.9	2.1	1.8 <sup>(6)</sup>	1.7 <sup>(6)</sup>
		Female	2.6	2.4	2.0 <sup>(6)</sup>	1.9 <sup>(6)</sup>
	Participation in training/lifelong learning (age group	Low <sup>(3)</sup>	0.1 <sup>(6)</sup>	0.4 <sup>(6)</sup>	0.3 <sup>(6)</sup>	0.1 <sup>(6)</sup>
		Medium <sup>(4)</sup>	3.2	2.4	2.1	2.0

	25-64) by education (%)	High <sup>(5)</sup>	9.0	6.0 <sup>(6)</sup>	4.3 <sup>(6)</sup>	4.7 <sup>(6)</sup>
	Participation in training/lifelong learning (age group 25-64) by working status (%)	Inactive	2.9	2.7	2.6 <sup>(6)</sup>	2.4 <sup>(6)</sup>
		Employed	3.0	1.8 <sup>(6)</sup>	1.4 <sup>(6)</sup>	1.2 <sup>(6)</sup>
		Unemployed	1.7 <sup>(6)</sup>	2.4 <sup>(6)</sup>	1.4 <sup>(6)</sup>	2.7 <sup>(6)</sup>
14	Low achievement in reading, mathematics and science – PISA (%)	Reading	N.A.	N.A.	53.7	N.A.
		Mathematics	N.A.	N.A.	57.6	N.A.
		Science	N.A.	N.A.	56.8	N.A.
15	Activity rate (aged 15+) (%)	Total	44.6	44.1	42.1	42.1
		Male	56.7	55.1	53.2	51.7
		Female	33.2	33.5	31.4	32.9
16	Inactivity rate (aged 15+) (%)	Total	55.4	55.9	57.9	57.9
		Male	43.3	44.9	46.8	48.3
		Female	66.8	66.5	68.6	67.1
17	Employment rate (aged 15+) (%)	Total	32.5	31.9	34.3	35.5
		Male	43.2	40.9	44.1	44.6
		Female	23.7	23.3	25.0	26.7
18	Employment rate by educational attainment (% aged 15+%)	Low <sup>(3)</sup>	15.4	14.4	13.9	15.7
		Medium <sup>(4)</sup>	42.5	40.3	43.8	44.6
		High <sup>(5)</sup>	60.9	59.3	59.5	59.3
19	Employment by sector (aged 15+) (%)	Agriculture	19.7	17.9	15.7	18.0
		Industry	31.0	29.5	32.1	31.7
		Services	49.3	52.6	52.1	50.3
20	Incidence of self-employment (aged 15+) (%)		26.5	24.2	21.4	24.9
21	Incidence of vulnerable employment (aged 15+) (%)		21.6	20.2	16.4	19.1
22	Unemployment rate (aged 15+) (%)	Total	27.2	27.7	18.4	15.7
		Male	25.6	25.8	17.2	13.6
		Female	29.9	30.7	20.3	18.8
23	Unemployment rate by educational attainment (aged 15+) (%)	Low <sup>(3)</sup>	28.0	27.3	18.5	14.1
		Medium <sup>(4)</sup>	29.3	30.0	19.2	16.9
		High <sup>(5)</sup>	15.6	18.4	15.1	12.0

24	Long-term unemployment rate (aged 15+) (%)		22.3 <sup>c</sup>	22.6 <sup>c</sup>	15.2 <sup>c</sup>	M.D.
25	Youth unemployment rate (aged 15-24) (%)	Total	57.5	62.3	38.8	33.8
		Male	55.1	59.5	35.4	31.3
		Female	61.3	67.3	45.5	37.9
26	Proportion of people aged 15–24 not in employment, education or training (NEETs) (%) <sup>(11)</sup>	Total	28.0	27.7	21.6	21.0
		Male	28.1	29.2	22.1	20.7
		Female	28.0	26.0	21.1	21.4

Last update End of August 2020

Sources:

Indicators 8, 9, 12, 13, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26 - BHAS

Indicators 14 – OECD,

Indicators 11 – UNESCO, Institute for Statistics

Indicators 1, 2, 3, 4 – The World Bank, World Development Indicators database

Notes:

(1) Mid-year estimates

(2) Active population

(3) Low - primary and basic general education

(4) Medium - general secondary and vocational-technical education

(5) High - secondary special and higher education

(6) Unreliable data

(7) Age group 15-74

(8) Age group 16-59 (males) and 16-54 (females)

(9) Based on administrative data (annual average labour resources estimates).

(10) Provisional data

(11) The calculation takes into account those not in education at the time of the survey, including those trained independently (not under the supervision of the teacher); only those not in education considered (2009)

Legend:

e = estimated

c = calculated

u = unreliable

N.A. = Not Applicable

M.D. = Missing Data

## ANNEX 4: INDICATOR DEFINITIONS

	Description	Definition
1	Total population (000)	The total population is estimated as the number of persons having their usual residence in a country on 1 January of the respective year. When information on the usually resident population is not available, countries may report legal or registered residents.
2	Relative size of youth population (age group 15-24) (%)	This is the ratio of the youth population (aged 15-24) to the working-age population, usually aged 15-64 (74)/15+.
3	GDP growth rate (%)	Annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2010 U.S. dollars. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.
4	GDP by sector (%)	The share of value added from Agriculture, Industry and Services. Agriculture corresponds to ISIC divisions 1-5 and includes forestry, hunting, and fishing, as well as cultivation of crops and livestock production. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources. The origin of value added is determined by the International Standard Industrial Classification (ISIC), revision 3 or 4.
5	Public expenditure on education (as % of GDP)	Public expenditure on education expressed as a percentage of GDP. Generally, the public sector funds education either by directly bearing the current and capital expenses of 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 firms or non-profit organisations (transfer to private households and enterprises). Both types of transactions together are reported as total public expenditure on education.
6	Public expenditure on education (as % of total public expenditure)	Public expenditure on education expressed as a percentage of total public expenditure. Generally, the public sector funds education either by directly bearing the current and capital expenses of 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 firms or non-profit organisations (transfer to private households and enterprises). Both types of transactions together are reported as total public expenditure on education.



	Description	Definition
7	Adult literacy (%)	Adult literacy is the percentage of population aged 15 years and over who can both read and write with understanding a short simple statement on his/her everyday life. Generally, 'literacy' also encompasses 'numeracy', the ability to make simple arithmetic calculations.
8	Educational attainment of adult population (25-64 or aged 15+) (%)	Educational attainment refers to the highest educational level achieved by individuals expressed as a percentage of all persons in that age group. This is usually measured with respect to the highest educational programme successfully completed which is typically certified by a recognized qualification. Recognized intermediate qualifications are classified at a lower level than the programme itself.
9	Early leavers from education and training (age group 18-24) (%)	Early leaving from education and training is defined as the percentage of the population aged 18–24 with at most lower secondary education who were not in further education or training during the four weeks preceding the survey. Lower secondary education refers to ISCED 1997 levels 0-2 and 3C short (i.e. programmes with duration less than 2 years) for data up to 2013 and to ISCED 2011 levels 0-2 for data from 2014 onwards.
10	Gross enrolment rates in upper secondary education (ISCED level 3) (%)	Number of students enrolled in a given level of education, regardless of age, expressed as a percentage of the official school-age population corresponding to the same level of education.
11	Share of VET students in upper secondary education (ISCED level 3) (%)	Total number of students enrolled in vocational programmes at a given level of education (in this case upper secondary education), expressed as a percentage of the total number of students enrolled in all programmes (vocational and general) at that level.
12	Tertiary education attainment (aged 30-34) (%)	Tertiary attainment is calculated as the percentage of the population aged 30–34 who have successfully completed tertiary studies (e.g. university, higher technical institution). Educational attainment refers to ISCED 1997 level 5–6 up to 2013 and ISCED 2011 level 5–8 from 2014 onwards.
13	Participation in training/lifelong learning by sex, education and working status (age group 25-64) [%]	Lifelong learning refers to persons aged 25–64 who stated that they received education or training in the four weeks preceding the survey (numerator). The denominator consists of the total population of the same age group, excluding those who did not answer the question on participation in education and training. The information collected relates to all education or training, whether or not it is relevant to the respondent's current or possible future job. If a different reference period is used, this should be indicated.
14	Low achievement in reading, maths and science – PISA (%)	Low achievers are the 15-year-olds who are failing level 2 on the PISA scale for reading, mathematics and science.
15	Activity rate (aged 15+) (%)	The activity rate is calculated by dividing the active population by the population of the same age group. The active population (also called 'labour force') is defined as the sum of employed and unemployed persons. The inactive population consists of all

	Description	Definition
		persons who are classified as neither employed nor unemployed.
16	Inactivity rate (aged 15+) (%)	The inactivity/out of the labour force rate is calculated by dividing the inactive population by the population of the same age group. The inactive population consists of all persons who are classified as neither employed nor unemployed.
17	Employment rate (aged 15+) (%)	The employment rate is calculated by dividing the number of employed persons by the population of the same age group. Employed persons are all persons who worked at least one hour for pay or profit during the reference period or were temporarily absent from such work. If a different age group is used, this should be indicated.
18	Employment rate by educational attainment (% aged 15+)	The employment rate is calculated by dividing the number of employed persons by the population of the same age group. Employed persons are all persons who worked at least one hour for pay or profit during the reference period or were temporarily absent from such work. If a different age group is used, this should be indicated. Educational levels refer to the highest educational level successfully completed. Three levels are considered: Low (ISCED level 0-2), Medium (ISCED level 3-4) and High (ISCED 1997 level 5-6, and ISCED 2011 level 5-8)
19	Employment by sector (%)	This indicator provides information on the relative importance of different economic activities with regard to employment. Data is presented by broad branches of economic activity (i.e. Agriculture/Industry/Services) which is based on the International Standard Industrial Classification of All Economic Activities (ISIC). In Europe, the NACE classification is consistent with ISIC.
20	Incidence of self-employment (%)	The incidence of self-employment is expressed by the self-employed (i.e. Employers + Own-account workers + Contributing family workers) as a proportion of the total employed.
21	Incidence of vulnerable employment (%)	The incidence of vulnerable employment is expressed by the Own-account workers and Contributing family workers as a proportion of the total employed.
22	Unemployment rate (aged 15+) (%)	The unemployment rate represents unemployed persons as a percentage of the labour force. The labour force is the total number of people who are employed or unemployed. Unemployed persons comprise those aged 15-64 or 15+ who were without work during the reference week; are currently available for work (were available for paid employment or self-employment before the end of the two weeks following the reference week); are actively seeking work, i.e. had taken specific steps in the four-week period ending with the reference week to seek paid employment or self-employment, or had found a job to start later (within a period of, at most, three months).

	Description	Definition
23	Unemployment rate by educational attainment (aged 15+) (%)	The unemployment rate represents unemployed persons as a percentage of the labour force. The labour force is the total number of people who are employed or unemployed. Unemployed persons comprise those aged 15–64 or 15+ who were without work during the reference week; are currently available for work (were available for paid employment or self-employment before the end of the two weeks following the reference week); are actively seeking work (had taken specific steps in the four-week period ending with the reference week to seek paid employment or self-employment, or had found a job to start later (within a period of, at most, three months)). Educational levels refer to the highest educational level successfully completed. Three levels are considered: Low (ISCED level 0-2), Medium (ISCED level 3-4) and High (ISCED 1997 level 5–6, and ISCED 2011 level 5–8)
24	Long-term unemployment rate (aged 15+) (%)	The long-term unemployment rate is the share of unemployed persons since 12 months or more in the total active population, expressed as a percentage. The duration of unemployment is defined as the duration of a search for a job or as the period of time since the last job was held (if this period is shorter than the duration of the search for a job).
25	Youth unemployment rate (aged 15-24) (%)	The youth unemployment ratio is calculated by dividing the number of unemployed persons aged 15–24 by the total population of the same age group.
26	Proportion of people aged 15–24 not in employment, education or training (NEETs) (%)	The indicator provides information on young people aged 15–24 who meet the following two conditions: first, they are not employed (i.e. unemployed or inactive according to the ILO definition); and second, they have not received any education or training in the four weeks preceding the survey. Data is expressed as a percentage of the total population of the same age group and gender, excluding the respondents who have not answered the question on participation in education and training.

## LIST OF ACRONYMS

APOSO	Agency for Pre-Primary, Primary and Secondary Education
BHAS	Agency for Statistics of Bosnia and Herzegovina
EBRD	European Bank for Reconstruction and Development
ETF	European Training Foundation
EQAVET	European Quality Assurance in VET
EU	European Union
GDP	Gross domestic product
GIZ	German Development Agency
ICT	Information and communications technology
ILO	International Labour Organisation
IPA	Instrument for Pre-Accession Assistance
NEET	Not in employment, education or training
OECD	Organisation for Economic Co-operation and Development
OSCE	Organisation for Security and Cooperation in Europe
PISA	Programme for International Student Assessment
RCC	Regional Cooperation Council
VET	Vocational education and training
UN	United Nations
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
WEF	World Economic Forum

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FOR FURTHER INFORMATION ABOUT  
OUR ACTIVITIES PLEASE CONTACT:  
COMMUNICATION DEPARTMENT  
EUROPEAN TRAINING FOUNDATION  
VIALE SETTIMIO SEVERO 65  
I - 10133 TORINO  
E: [INFO@ETF.EUROPA.EU](mailto:INFO@ETF.EUROPA.EU)  
T: +39 011 6302222  
F: +39 011 6302200  
[WWW.ETF.EUROPA.EU](http://WWW.ETF.EUROPA.EU)