

1 Education systems in Bosnia and Herzegovina

International assessments reveal that student achievement in Bosnia and Herzegovina (BiH) is similar to other Western Balkan economies but large shares of students continue to leave school without mastering basic competences. The country also has limited data on teaching and learning, making it difficult to take evidence-informed policy decisions. These challenges are hindered by capacity and resource constraints that prevent several competent education authorities from developing strategic plans and implementing education reforms. This chapter reviews some of the contextual features of education in BiH and highlights how evaluation and assessment can help achieve higher learning standards for all students.

Introduction

A potential candidate for EU membership, Bosnia and Herzegovina (BiH), has made incremental progress over recent years to achieve more inclusive and sustainable growth and improve the well-being of its population (European Commission, 2021^[1]). Education has a key role to play in meeting these objectives, and the country's administrative units are taking steps to improve their various education systems. For example, education officials have developed a Common Core Curriculum Based on Learning Outcomes (CCC) that aims to unlock the learning potential of all students. Many education authorities in the country have also started to integrate this competence-based approach into their respective curricula.

At the same time, BiH still faces sizeable educational challenges. While the country achieves good levels of participation in education, international assessments reveal that learning outcomes of the average student remain lower than in EU countries, raising serious concerns about the effectiveness of the country's education systems. BiH also struggles to ensure all children have access to high quality early childhood education, creating inequities that often follow children throughout schooling. To improve teaching and learning, policymakers in BiH would benefit from further collaboration between competent education authorities and should prioritise a targeted and realistic set of long-term, sustainable policy reforms. Efforts to create a stronger culture of evidence-informed policymaking can also help to improve education outcomes by promoting more accountability, providing a renewed focus on quality, and ensuring better educational opportunities for all students.

Country context

Political and economic context

Governance of Bosnia and Herzegovina is distributed across fourteen administrative units and four tiers of governance

BiH's system of government is based on the 1995 Dayton Peace Agreement, which resulted in the country's current constitutional framework. This framework relies on the principle of balance and equality among the country's three "Constituent" peoples (Bosniaks, Croats and Serbs), along with Others. The Presidency of BiH consists of three members, one Bosniak and one Croat, each directly elected from the territory of the Federation of BiH, and one Serb directly elected from the territory of Republika Srpska. Through the Constitution, there are fourteen "administrative units" or tiers of governance in BiH: one at the level of the state (BiH); two entities (RS and FBiH); one self-governing district (BD); and ten cantons, which constitute one of the entities (FBiH):

- **Bosnia and Herzegovina (BiH):** the state-level unit of governance that consists of two entities (RS and FBiH) and the Brčko District.
- **Republika Srpska (RS):** a centralised self-government entity with 64 local self-government units;
- **Federation of Bosnia and Herzegovina (FBiH):** is an entity that consists of ten federal units (cantons), which each hold responsibility for education policy in their jurisdiction, and a total of 79 municipalities;
- **Brčko District (BD):** a local self-government unit, with similar executive, legal and judiciary functions as the above entity and cantonal governments.

Each of these units has its own executive, legal and judiciary authority. In the area of education, the administrative units at BiH and FBiH level are mainly responsible for policy co-ordination and running country- or federation-level initiatives. The entity, canton and district units are the "competent authorities" with decision-making powers in the area of education policy. This complex governance arrangement

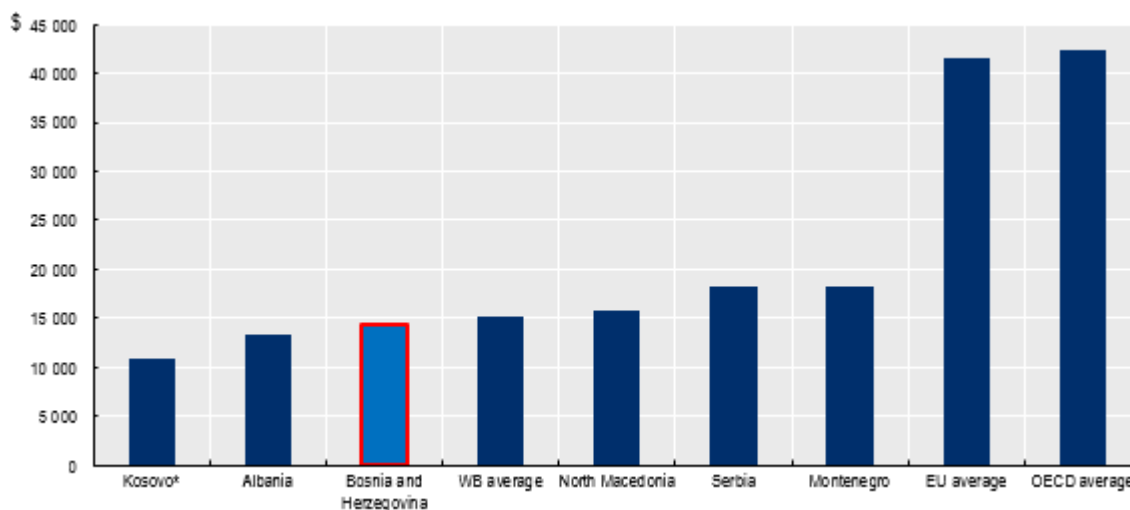
creates significant challenges for setting strategic objectives, policy coherence, and ensuring the effective delivery of public services. This review will cover seven administrative units: the state (BiH); the two entities of RS and FBiH; Brčko District, and a sample of three cantons (Sarajevo Canton, Central Bosnia Canton and West Herzegovina Canton). These cantons reflect differences across FBiH in terms of population size, development levels, geographic location and adopted curricula.

Bosnia and Herzegovina is a middle-income country, yet the economy remains largely consumption based and is vulnerable to external fluctuations

Over the last two decades, BiH has become a middle-income country with services contributing 56% to gross domestic product (GDP) as of 2019 (OECD, 2021^[2]). Wholesale and retail trade, in addition to a large public administration sector inflated by the complex political and economic structure (ibid), dominates the country's service industry. While BiH has diversified its economy in recent years, consumption continues to be the main driver of economic activity, making BiH particularly vulnerable to external fluctuations (World Bank, 2019^[3]) (World Bank, n.d.^[4]). For example, the 2008 global economic crisis led to a recession that contributed to GDP growth rate of -3% in 2009 (OECD, 2019^[5]). More recently, the drop in consumption and investment caused by the COVID-19 pandemic contracted the BiH economy by 4.3% in 2020 (World Bank, 2021^[6]). This context has implications for the ability of governments within BiH to raise revenue for the education sector and allocate resources effectively.

Prior to the pandemic, in 2019, BiH's economic growth (at 3% of GDP) was lower than neighbouring economies of Kosovo¹ (5%), Montenegro and Serbia (4%), but slightly above the EU and OECD averages of around 2% (World Bank, 2022^[7]). However, despite some increases in recent years, GDP per capita in BiH remains one of the lowest in the region (Figure 1.1), indicating the country's struggle to raise living standards. As of 2015 (most recent year with available data), around 17% of the BiH population were living below the poverty line and regional disparities in terms of access to public services and well-being outcomes are stark (World Bank, 2020^[8]). These challenges make it even more difficult to provide high quality and equitable education to all children in BiH. Importantly, the resilience of BiH's post-COVID-19 recovery will depend on the extent to which governments can address some of the existing structural challenges that worsened during the pandemic, such as the complex business environment, demographic shifts, and the need for investment in infrastructure and human capital to foster more competitive and sustainable growth.

Figure 1.1. GDP per capita, PPP (constant 2017 international \$), 2020



Note: * This designation is without prejudice to positions on status, and is in line with United Nations Security Council Resolution 1244/99 and the Advisory Opinion of the International Court of Justice on Kosovo's declaration of independence.

WB: Western Balkan.

Source: (World Bank, 2022^[7]), World Bank Open Data, <https://data.worldbank.org/> (accessed on 11 October 2021).

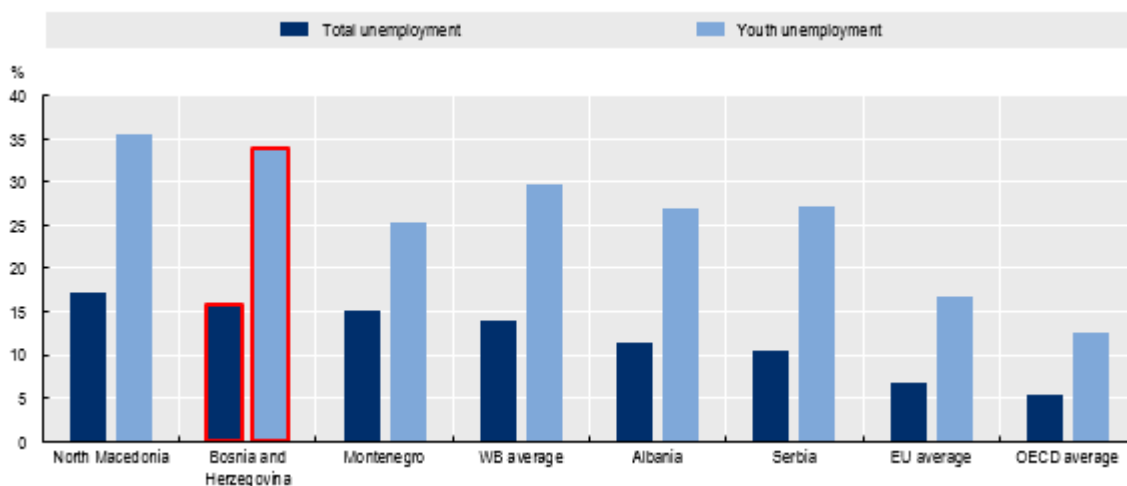
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High unemployment rates, especially among youth, contribute to substantial emigration

Similar to other countries, the COVID-19 crisis strongly affected BiH's labour market. Unemployment rose from 16% in 2019 to 17% in 2020, reversing the gains of previous years during which BiH had experienced a steady decline in unemployment (World Bank, 2022^[7]; OECD, 2021^[2]). Nevertheless, unemployment rates prior to the pandemic (in 2019) were high in BiH compared to other economies in the region, including Serbia (10%) and Albania (11.5%), as well as the OECD (5%) and EU (7%) averages (World Bank, 2022^[7]) (Figure 1.2). This trend is partially attributable to skills gaps. Employers report that young people are not leaving education with the competences or practical skills they need to perform a job – according to one survey conducted by the World Bank, more than half of firms in BiH report this issue (World Bank, 2018^[9]). BiH also faces other employment policy challenges, namely a large informal workforce, high female unemployment and a public sector that tends to offer higher wages and better working conditions compared to opportunities in private companies (OECD, 2021^[2]).

The youth unemployment rate in BiH (34% in 2019) is also one of the highest in the Western Balkans (for which international comparable data is available), just behind North Macedonia (35.5%) and much higher than the average rate among OECD countries (12.5%) (World Bank, 2022^[7]). Weak job creation and limited opportunities encourage a significant number of young people to emigrate. This “brain drain” phenomenon is a common issue across the Western Balkans (World Bank, wiiw, 2018^[10]; Kadusic and Suljic, 2018^[11]). However, it is especially prominent in BiH, which ranked 135th out of 137 countries for “capacity to retain talent” in the World Economic Forum's 2017-2018 Global Competitiveness Report (World Economic Forum, 2017^[12]). In addition to economic motivations, there is evidence that youth emigration in BiH is also driven by political instability and lack of trust in government institutions (Turčilo et al., 2019^[13]; OECD, 2022^[14]). For example, around 80% of young people reportedly do not think BiH authorities deal with political issues in the right manner (Prism Research, 2017^[15]). While improving educational quality can help address skills mismatch in BiH, incentivising young people to stay and reducing overall unemployment will likely require a range of employment and structural policy reforms.


Figure 1.2. Unemployment rates (total and youth), 2019



Note: WB: Western Balkan. Data for Kosovo* is not available.

Total unemployment: percentage of total labour force. (Modelled ILO estimate). Youth unemployment: Percentage of total labour force ages 15-24 (modelled ILO estimate).

Source: (World Bank, 2022^[7]), *World Bank Open Data*, <https://data.worldbank.org/>, (accessed on 17 January 2022).

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The public perceives corruption in public administration to be high

Corruption in public administration is a significant challenge in BiH, despite the existence of anti-corruption laws and a state-level Agency for the Prevention of Corruption and the Coordination of the Fight Against Corruption (OECD, 2021^[2]; European Commission, 2019^[16]). The BiH score in the Corruption Perceptions Index decreased by 7 points between 2012 and 2020, one of the largest declines in Eastern Europe and Central Asia (Transparency International, 2021^[17]). There was also evidence of discrimination in economic aid distribution during the COVID-19 pandemic (ibid). Progress to combat corruption is extremely limited. Under BiH's institutional set-up, each administrative unit has its own law enforcement agencies, its own anti-corruption legislation and strategies, and alignment and co-operation is limited (European Commission, 2019^[16]). While each entity and canton has an anti-corruption agency, these bodies are not always independent or permanent, and many lack the resources to address corruption issues effectively (ibid).

These systemic challenges of corruption are present in the education sector. Around 64% of the population find BiH education systems to be “corrupt” or “extremely corrupt” (Transparency International, 2018^[18]). There is also some evidence of political interference in the appointment of school principals (see Chapter 4) but this issue is particularly acute in higher education, where both students and professors report widespread bribery in examination and admissions processes (OBC Transeuropa, 2017^[19]; Sabic-El-Rayess, 2012^[20]). Corruption has been further exacerbated by the growing presence of so-called “degree mills”, or higher education institutions known for giving away fake diplomas - including master’s and doctorate’s degrees - in exchange for payment and without requiring students to follow classes or complete a thesis (OBC Transeuropa, 2017^[21]). Limited capacity and weak co-ordination of BiH governing structures hinder the country’s ability to ensure the quality of learning programmes and makes it difficult to address corruption.

Social context

Bosnia and Herzegovina's population is diverse

BiH is comprised of diverse population groups, which remains an important source of political debate. The last census, which took place in 2013, revealed that the population consisted of mainly Bosniaks (50%), Serbs (31%) and Croats (15%), the three 'Constituent Peoples' of the country, with 3% of the population coming from other ethnic groups (BHAS, 2013^[22]). During 1992-95, forced migration led not only to a decline in the total number of citizens in BiH, but also to a regional homogenisation of different groups along ethnic lines (Kadusic and Suljic, 2018^[11]). At the time of the last census, almost 82% of RS's population was Serb and 70% of FBiH's population was Bosniak. In Brčko District, meanwhile, the population is much more diverse: in 2013, 42% were Bosniak, almost 21% were Croat, and 35% were Serb (BHAS, 2013^[22]). Within FBiH, the majority of the population in Sarajevo Canton (84%) were Bosniak but this group represents less than 1% of the population in the West Herzegovina Canton, where most citizens (99%) identify as Croat (ibid.). There are also three official languages (Bosnian, Croatian and Serbian), and both the Latin and Cyrillic alphabets are used on a daily basis. Religion is also aligned with the different population groups: more than 70% of the population living in FBiH are Muslim (mainly Bosniaks), while around 22% is Catholic (mainly Croats) (ibid.). In RS, more than 80% of the population (mainly Serbs) identifies as Orthodox (ibid.).

Migration and low fertility rates are contributing to demographic decline

Census data reveal that the population in BiH dropped by nearly 20% from 1991 to 2013, largely because of the last war (BHAS, 2016^[23]). In 2019, the estimated population was around 3.3 million and is expected to continue declining by around 18% until 2050 (United Nations, 2019^[24]). The main drivers of population decline in BiH are low fertility rates and high emigration. The net migration rate was -6.4 (migrants per thousand population) from 2015-20 (United Nations, 2019^[24]), with a large share of youth leaving the country to seek study and work opportunities abroad (see above). BiH also has one of the lowest fertility rates in the world, with an average of 1.25 children per person (United Nations, 2019^[24]). This is well below the 2.1 children per person needed for a country to maintain a stable population without immigration (United Nations, 2017^[25]). As a result, BiH has a shrinking and aging population: the percentage of the population aged 65+ went from 7% in 1990 to 18% in 2020, while the share of those aged 15 years old or less went from 24% to 14.5% in the same period (United Nations, 2019^[24]). This demographic context has implications for the delivery of public policies and services. For example, the school-age population is expected to continue to decline, highlighting a growing need to reorganise the country's school network, as well as an opportunity to concentrate investments on teachers and other resources that can help improve learning outcomes.

Exclusion of minority groups persists

Recent surveys show that ethnic minorities in BiH, especially Roma, which represent around 2% of the population, face difficulties integrating into society (Robayo-Abril and Millán, 2019^[26]). Studies suggest that they are less likely to participate in the labour market than other social groups, are less likely to access basic services such as education, health care and housing, and that only 1.5% of Roma children are enrolled in pre-school education (The Ministry for Human Rights and Refugees of Bosnia and Herzegovina and the Agency for Statistics of Bosnia, 2013^[27]). The Roma coverage index² suggests that Roma in BiH have one of the lowest levels of access to public services in the Western Balkan region, only behind Kosovo* (Robayo-Abril and Millán, 2019^[26]). Ensuring minority groups fully enjoy their rights as citizens is not only a matter of human and social rights but also an important opportunity for aging societies to counteract declines in the working-age population.

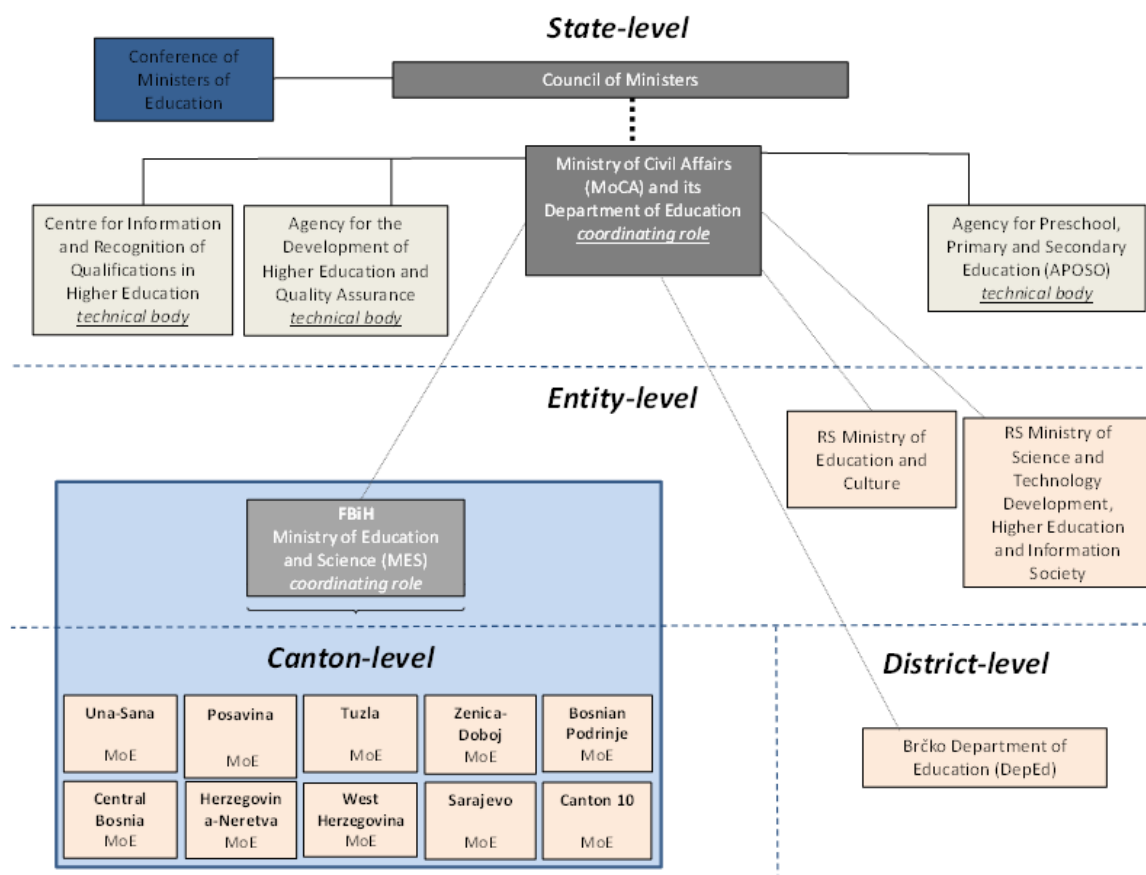
Key features of education systems in Bosnia and Herzegovina

Governance of BiH's education systems

Several co-ordinating bodies operate in the education sector

Responsibility for education policy in BiH is assigned to the entity of Republika Srpska, the ten cantons of the FBiH and the Brčko District (Figure 1.3). The FBiH Ministry of Education and Science is responsible for co-ordinating the 10 autonomous cantonal ministries within its territory (e.g. publishes the list of the approved textbooks and other resources used by schools). A number of state-level institutions and bodies are also involved in the education sector. The BiH Ministry of Civil Affairs has an Education Department that represents the country in international fora and plays a policy co-ordination role. BiH also has expert bodies that operate at the state-level (e.g. the Agency for Pre-school, Primary and Secondary Education, APOSO), as well as co-ordination bodies, such as the Conference of Ministers of Education in BiH (chaired by the Ministry of Civil Affairs). Despite having several bodies responsible for co-ordination, the education governance structure in BiH makes it extremely difficult to develop and implement systemic, country-wide reforms.

Figure 1.3. Institutions responsible for education in Bosnia and Herzegovina



Note: The light peach colour indicates competent education authorities, which have decision-making powers in the area of education policy within their jurisdictions.

Source: Adapted from (BiH, 2021^[28]), *Country Background Report for the OECD Review of Evaluation and Assessment in Education: Bosnia and Herzegovina*

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Priorities for educational reform are set at the level of competent education authorities

Following BiH's constitutional governance structure, competent authorities at the entity, canton and district level define education laws and strategies. However, there are four framework laws at the state-level, which exist in the areas of: i) pre-school education; ii) primary and secondary education; iii) secondary vocational education and training; and iv) higher education. All administrative units are required to harmonise their legislation with state-level framework laws to help provide a minimal level of legislative co-ordination within the country and align the sector with international standards and principles. While policy integration happens to various extents depending on the topic and administrative unit, in reality, education policy and strategic planning are not aligned across the country in a systematic way (Table 1.1). For example, BiH does not yet have a state-level strategy that sets out priorities for school education across the country as a whole. Such decisions are taken at the level of administrative units, despite common demands school improvement tools. At the same time, some administrative units lack the capacity to elaborate their own strategies, implementation plans and monitoring frameworks to guide improvement efforts (see Chapter 5).

Table 1.1. Existing education strategies across BiH administrative units

Administrative unit	Education strategy	Time period covered	Thematic priority areas	Strategy associated with an action plan?
BiH (state-level)	- No school education strategy exists at BiH-level; previous strategy covered 2008 – 2015; - <i>The Platform for Development of Early Childhood Education and Care in BiH (2017-2022)</i> covers pre-school education - <i>Improvement of the Quality and Relevance of Vocational Education and Training in Bosnia and Herzegovina - in light of the Riga Conclusions - (2021- 2030)</i>			
RS entity	<i>Strategy of Education Development for Pre-university Education</i>	2016-21	-harmonise school network with demographic changes	Yes
FBiH entity	No pre-tertiary education strategy exists			
Sarajevo Canton	No pre-tertiary education strategy exists			
Central Bosnia Canton	Education goals covered in Canton's general Development Strategy, which was adopted in October 2021	2021-27	-increasing coverage of pre-school education -reforming secondary vocational education	
West Herzegovina Canton	Education goals covered in Canton's general Development Strategy; first Canton Education and Science Strategy is under development	2021-27		
Brčko District	Education goals covered in the district's general Development Strategy	2021-27	- improving access to quality education -developing teacher capacity -modernising schools and teaching methods	

Source: (BiH, 2021^[28]), *Country Background Report for the OECD Review of Evaluation and Assessment in Education: Bosnia and Herzegovina*.

Most administrative units in BiH have pedagogical institutes or equivalents with a broad mandate to monitor and support teachers and schools

There are currently nine pedagogical institutes or equivalents in BiH: one in RS, one in the Brčko District and one in seven out of the ten cantons of the FBiH. The cantons of Posavina and Central Bosnia do not have such bodies. Sarajevo Canton closed its pedagogical institute in 2021 and is currently establishing a new Institute of Pre-University Education. While the mandate and level of independence of pedagogical institutes varies by administrative unit, these bodies are generally responsible for developing curricula; creating teacher training programmes; and providing pedagogical assistance to schools and teachers. In many cases, however, the monitoring and supervisory role of institutes dominates efforts, jeopardising their ability to provide schools with pedagogical support. Limited human and financial resources are a common challenge for many pedagogical institutes, although the extent to which institutes have sufficient capacity varies (EU-ICBE Project, 2008^[29]) (BiH, 2021^[28]).

A state-level expert agency (Ministry) sets standards and evaluates the country's education systems, but a lack of harmonised policies may impede the fulfilment of its mandate

Established in 2009, APOS0 is an expert education body at the state-level. The agency has responsibilities for setting learning standards, evaluating educational quality and undertaking other work to support education reform within the limits defined by law and other regulations. Although APOS0 has a broad mandate and limited financial and human resources (it only has around 13 professional staff), the agency has made important achievements over recent years. For example, the agency has created a Common Core Curriculum Based on Learning Outcomes (see below), organised BiH's participation in international assessments, such as the Trends in International Mathematics and Science Study (TIMSS) and the Programme for International Student Assessment (PISA), and produced analysis of the country's results on these assessments. Moreover, in partnership with competent education authorities, APOS0 continues to organise (non-mandatory) workshops and trainings for teachers. Through these activities, the agency

has developed a positive and trustworthy reputation across the country, but at times political issues can hinder its work. For instance, BiH's planned participation in the Progress in International Reading Literacy Study (PIRLS) 2021 and PISA 2022 studies were curtailed by political impasse; leaving the country without updated and comparable trend data on student learning outcomes (see Chapter 5).

The Common Core Curriculum Based on Learning Outcomes was adopted at the state level but implementation across administrative units remains uneven

After a multi-year development process led by APOSO, BiH adopted a new Common Core Curriculum Based on Learning Outcomes (CCC) in 2018, which represents a major step in establishing standards for education systems across BiH. The CCC sets out broad learning outcomes, defined as the knowledge, skills, and competences that each student needs to understand and be able to apply at different levels of schooling. It also defines a related set of 10 key competences that align with European and international norms (Chapter 2). The 2018 CCC builds on an earlier curricula framework and is now oriented around learning outcomes. The BiH state-level Framework Law on Primary and Secondary Education (2003) stipulates that local curricula should be harmonised with the CCC based on learning outcomes and APOSO has published guidelines to facilitate its adoption. Some administrative units have started to design and implement new curricula in line with the CCC. The West Herzegovina Canton, for example, has already designed its new curriculum for Social Sciences and Humanities, and is now developing curricula for other subjects (BiH, 2021^[28]). However, disparities in capacity and political will have contributed to a lack of consistency in the implementation of the CCC across different competent education authorities (World Bank, 2019^[30]) (OSCE, 2020^[31]). This situation makes it difficult for students to move horizontally across different education systems within the country, and hinders progress towards introducing the more student-centred and adaptive pedagogies that underpin the CCC based on learning outcomes.

Schools have some autonomy over management decisions but curriculum development is managed by education authorities at the entity, canton or district level

In all administrative units, schools are managed by principals and governed by a school board. In line with BiH's Framework Law for Primary and Secondary Education, this board generally comprises school staff, representatives of the local community and parent representatives. In many cases, it also comprises members selected by the competent education authority. The management of school funds and human resources (e.g. teacher selection, evaluation and dismissal) are typically determined at the school level. However, entity, canton or district authorities must typically grant approval prior to publishing a teaching vacancy, and confirm school principal candidates.

Competent ministries or departments of education often collaborate with their relevant pedagogical institutes to develop and approve their curricula and associated learning resources. The latter includes textbooks, as well as other teaching and learning materials. However, the level of pedagogical autonomy in schools across BiH varies (World Bank, 2021^[32]). In RS, for example, schools are only allowed to shorten instruction time in exceptional cases. In the FBiH, the entity ministry's role in managing schools is limited to defining a list of approved textbooks and other teaching resources, though this list does not include Croatian language textbooks. In the FBiH, the responsibility for administering schools lies with the cantonal ministries, which each have their own regulations (BiH, 2021^[28]). In Brčko District, the curriculum is prescribed by the Head of the Department of Education (equivalent to a Ministry), based on a format proposed by the Pedagogical Institution. The District is currently exploring legislative changes to provide more autonomy of secondary schools.

Funding of education

BiH's exhibits resource inefficiencies linked to its governance structure

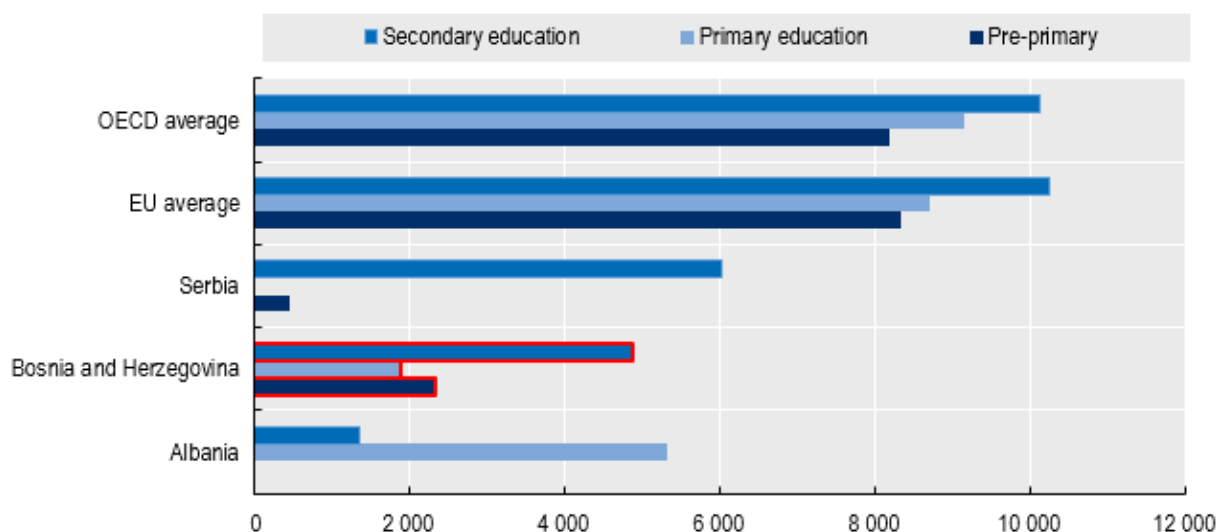
BiH's governance structure, coupled with a limited interest in co-operation and co-ordination (e.g. the lack of state-level education strategy) between administrative units and restricted resources and capacity, poses significant challenges for policy co-ordination and resource efficiency. This situation partly relates to the high administrative costs of managing the country's education sector. BiH has a population of 3.3 million people and around 417 000 students (BiH, 2021^[28]), which is roughly similar to other Western Balkan economies. However, unlike its neighbours, BiH needs to fund salaries for the civil servants of 14 separate education authorities (World Bank, 2019^[30]). This high level of decentralisation limits BiH's capacity to organise resources more efficiently, contributing to significant disparities among entities and cantons, as well as by level of education (see below).

Spending on education is higher in BiH than in other Western Balkan economies but lower than OECD and EU averages

In 2018, BiH spent around 4.4% of its GDP on education, which was similar to the EU (4.7%) and OECD (4.5%) averages and slightly higher than neighbouring Western Balkan economies, such as Albania (3.6%, 2017) and Serbia (3.7%, 2018) (UNESCO UIS, 2021^[33]). However, when looking at per-student funding, BiH's spending is much lower than the EU and OECD averages, especially at the primary level (Figure 1.4). In 2018, BiH spent 0.1% of its GDP in pre-primary education, 0.6% in primary and 2.4% in secondary, compared to the OECD averages of 0.5%, 1.4% and 1.9%, respectively. One reason BiH may spend a high share of available resources at the secondary level is because many students enrol in vocational programmes, which are often more expensive as governments need to continuously adapt infrastructure and materials for practical learning. At the same time, overall funding at the secondary level is still overall very low, which has consequences on the quality of teaching and learning.


There are also important resource disparities across and within administrative units in BiH, largely because local authorities raise their own funding for education. For example, per-student spending varies across cantons from 2 000 BAM in Tuzla to over 4 300 BAM in West Herzegovina (World Bank, 2019^[30]). Overall, FBiH spends around 4.8% of its GDP on education, while RS spends 4.4% (World Bank, 2019^[30]) and Brčko District spends 18.3% (self-reported data). To some extent, these differences reflect variations in the salary regulations of different administrative units and the costs of service delivery in rural versus more urban areas (ibid). However, they are also signs of resource inefficiency within the country. In this context, donor funding often constitutes an important resource for interventions focused on improving education quality, such as teacher training and investing in school infrastructure. However, gaps in policy continuity, co-ordination and planning, means that it can be difficult to channel donor assistance in a way that generates sustained, systemic improvements.

Figure 1.4. Government expenditure per student by education level (in PPP\$), 2018



Note: Data for Albania and Serbia are from 2019. Data for pre-primary education in Albania and primary education in Serbia are missing. Comparable data from other Western Balkan economies is not available.

Source: (UNESCO UIS, 2021^[33]), *UIS database*, <http://data.uis.unesco.org/> (accessed on 13 October 2021).

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Expenditure on education at the BiH-level is mainly used for state-level activities, not schools

Expenditure on education at the BiH-level is mainly supports state-level activities and education bodies, such as the Ministry of Civil Affairs and APOSO. The contribution of state-level funding to the education budgets of FBiH, RS, the 10 cantons and Brčko District is very small (UNESCO, Global Education Monitoring Report, 2021^[34]). Competent education authorities generate their own resources and take spending decisions based on their respective financial capacities and policy priorities (World Bank, 2019^[30]). In general, RS, the Brčko District, FBiH and cantonal budgets cover the cost of staff salaries for primary and secondary education, investments and material expenditures, as well as the costs of professional development for teachers, instructional materials and school competitions, among other items.

Entity, cantonal and district authorities can also supplement their education budgets by raising funds from municipalities within their jurisdiction. For example, in most of the administrative units, municipal budgets finance early childhood education (ECEC). However, given the uneven economic development across municipalities, this contributes to significant variations in ECEC access and quality and often leaves parents to carry most of the costs, contributing to low enrolment rates in pre-school education (UNESCO, Global Education Monitoring Report, 2021^[34]). Municipal budgets also typically cover the cost of infrastructure and maintenance of secondary schools, such as heating, electricity, upgrading and reconstruction, etc. There are some differences in how administrative units covered by this review raise and allocate education funding:

- **FBiH:** The FBiH government approves the budget for its Ministry of Education, which is tasked with implementing planned programmes and projects related to improving the quality of education and science (BiH, 2021^[28]). Funding for issues related to school management (e.g. teacher salaries,

school infrastructure and others) are covered by cantons and municipalities. The cantonal laws regulate the financing from the cantonal budgets.

- **RS:** The entity budget is the main source of funding for primary education in the RS, as municipalities are not required to contribute funding at this level. However, secondary schools receive funds from both the entity budget and municipal authorities (BiH, 2021^[28]). Additional funding from donors, including international institutions (United Nations Development Programme, UNICEF, etc.), businesses and private individuals has become increasingly common since the RS Ministry lacks sufficient financial resources for material investments in school facilities and equipment (e.g. computers, teaching resources, etc.) (BiH, 2021^[28]).
- **Brčko District:** The District's budget fully funds education in Brčko District.

School funding is mainly inputs-based

The financing of pre-tertiary education in BiH is usually based on pre-defined standards, which typically set out the minimum, optimal and maximum number of school inputs, such as the number of teachers, teaching hours and/or the number of classes in each school (World Bank, 2019^[30]). Unlike most education systems in the Western Balkans and across the OECD, school funding formulas in BiH do not always consider the number or profile of students or school contexts (BiH, 2021^[28]; OECD, 2017^[35]). For example, the Central Bosnia Canton allocates funding to schools exclusively based on how many teachers the school employs. On the other hand, the RS and Brčko District consider the number of students and classes in each school (among other criteria, such as level of education) in their funding formula (BiH, 2021^[28]). This means that schools with high enrolments often receive more funding, putting schools in rural areas with fewer students at a disadvantage. None of the school funding formula used in BiH consider outputs or outcomes when allocating resources to schools. According to recent World Bank study, the country could benefit significantly from a more output-based school financing systems as this change would not only support greater efficiency of education systems but also help improve equity and transparency (World Bank, 2019^[30]).

Structure of schooling in Bosnia and Herzegovina

The majority of schools in BiH are public and compulsory schooling is slightly shorter than OECD and EU averages

Most schools in BiH are publicly funded. Of the 2 427 institutions offering pre-tertiary education in 2019, only around 8% were private, the majority of which were pre-schools (BiH, 2021^[28]). As a result, most children and young people in BiH attend public institutions: these institutions account for 66% of enrolments at the pre-primary level (ISCED 0); nearly 100% at primary level (covering ISCED 1 and 2 in BiH) and 79% at the secondary level (ISCED 3) (ibid). These shares are similar to the average across OECD countries; though the OECD average enrolment rates in public schools at the primary (88%) and lower secondary (85%) level are slightly lower than that of BiH (OECD, 2021^[2]). Despite the dominance of public education in the country, there is evidence that the quality of teaching and learning varies depending on a number of factors, such as student socio-economic background and type of study programme.

Across BiH, “basic” or “primary” education refers to compulsory education, which lasts from the ages of approximately six to 15 years old. Compulsory (aka basic or primary) education therefore covers ISCED 1 and ISCED 2, which corresponds to primary and lower secondary education in many other countries. However, in Sarajevo Canton, as well as in Una Sana Canton and Bosnia Podrinje Canton (not covered by this review), the first two years of upper-secondary education (ISCED 3) are also compulsory. While there are slight differences across each administrative unit, basic education is usually divided into three phases (Figure 1.5) and lasts for nine years. This is slightly shorter than the average duration of

compulsory education in OECD and EU countries (around 10 years) but is on par with Albania, Montenegro and Slovenia.

Figure 1.5. Structure of education systems in Bosnia and Herzegovina

ISCED 2011	Starting age	Grade	Note	Education programme			
8			Tertiary education	Doctoral or equivalent (3 years)			
7			Tertiary education	Master's or equivalent (1-2 years)			
6			Tertiary education	Bachelor's or equivalent (3-4 years)			
4			Post-secondary non-tertiary education	Post-secondary non-tertiary education (1-2 years)			
3	18	XIII	Secondary education	General high school programme (4 years)	Technical programmes (4 years programmes)	Vocational programmes (3-4 years depending on the programme)	Arts and religious programmes (4 year programmes)
	17	XII					
	16	XI					
	15	X					
2	14	IX	Third cycle of primary education	Primary education - basic education (single structure) compulsory			
	13	VIII					
	12	VII					
1	11	VI	Second cycle of primary education				
	10	V					
	9	IV	First cycle of primary education				
	8	III					
	7	II					
6	I						
02	5 and a half / 6 and a half	Pre-primary education	(minimum of 150 hours of preparatory pre-school education are compulsory in 8 FBiH cantons and Brčko District)				
	5						
	4						
01	3	Early childhood educational development	Nursery				
	2						
	1						
	0						

Note: Blue triangle means access to tertiary education.

Not all administrative units in BiH follow this exact structure. For example, in eight out of 10 cantons and the Brčko District a stipulated period of pre-school education is compulsory. Moreover, Sarajevo Canton, Una Sana Canton and Bosnia Podrinje Canton have made the first two years of USE compulsory since 2010.

Source: Adapted from (BiH, 2021^[28]), *Country Background Report for the OECD Review of Evaluation and Assessment in Education: Bosnia and Herzegovina*.

Early childhood education policies are inconsistent across the country

Early childhood education and care (ECEC) in BiH generally takes two forms: nursery (for children from 6 months to 3 years old) and kindergarten (for children from 3 years old to the time they enter school). In cantons where participation in one year of ECEC is obligatory (prior to school entry), cantonal legislature prescribes the length and structure of this education level. In recent years, there have been strategic efforts to improve the quality of ECEC in all parts of BiH and bring policies and practices in line with international standards. For example, the Ministry of Civil Affairs, together with competent education authorities, developed the state-level *Platform for the Development of Pre-school Education 2017-2022*. This platform aimed to increase the coverage of children in the mandatory year of pre-school education to 100% and raise enrolments for children in kindergarten (ages 3-5) and nursery (age 0-3) to 50% and 20%, respectively (Government of Bosnia and Herzegovina, 2019^[36]).

However, despite having a Framework Law for Pre-school Education, the implementation of this law and other ECEC policies are inconsistent across different administrative units, and thereby, competent education authorities. For example, at least one year of pre-primary education is only compulsory in the Brčko District and in eight of the ten cantons of the FBiH; however, implementation of this policy varies. All administrative units require tuition fees to supplement municipal funding for ECEC. In the eight cantons, however, one year of pre-school education is offered free-of-charge to those children that are not already enrolled in full-day pre-schools – though this has been negatively affected by the pandemic. Some pre-primary education (around three months) is also provided free of charge in RS, and while the entity recommends enrolment, it is not compulsory. Within this context - and considering that a large share of ECEC providers in BiH are private - children in the country have very uneven opportunities to benefit from high-quality ECEC. Such benefits have long term implications, not only on learning and participation in school, but on social and emotional well-being and employment outcomes later in life (OECD, 2017^[37]; UNICEF, 2019^[38]).

Most students follow technical and vocational pathways at the upper-secondary level

Upper-secondary education (ISCED 3; referred to as secondary education in BiH) is not compulsory in most parts of the country. Secondary students can choose to study one of three programmes: general education (i.e. gymnasia or high schools generally lasting four years), technical programmes (lasting four years) and vocational programmes (lasting three years), or arts and religious programmes (Figure 1.5). Students are usually 15 years old when they enter upper secondary education and admission to this last stage of pre-tertiary education relies on students' academic results from basic education, as well as their individual interests. Sarajevo Canton also uses an externally administered examination to help determine student enrolment in secondary education programmes. In 2019, around 77% of upper secondary students in BiH were enrolled in technical and vocational programmes (UNESCO UIS, 2021^[33]). This is similar to the average in Serbia (74%), but higher than other Western Balkan economies and much higher than the EU average of 48% (in 2018), and the OECD average of 43% (Eurostat, 2020^[39]; OECD, 2021^[2]; UNESCO UIS, 2021^[33]). Specifically, in the 2018/19 school year, 55% students in BiH attended technical schools, 23% attended general high schools and 19% attended vocational schools (BHAS, 2019^[40]).

Such high rates of enrolment in technical and vocational programmes might be related to the high selectivity of admission to gymnasia in some areas of the country. A study from 2018 found that only 51% of employed graduates who had followed a secondary technical and vocational programme had a job related to their profession (World Bank, 2019^[30]). Some studies also suggest that BiH's technical and vocational education system is one of the weakest in the Western Balkans, as it lacks overall investment, adequate infrastructure (e.g. equipment and buildings) and uses outdated curricula (GIZ, n.d.^[41]; World Bank, 2019^[30]; OECD, 2021^[2]). The recently approved state-level strategic document *Improvement of Quality and Relevance of Vocational Education and Training in Bosnia and Herzegovina - In the Light of Riga Conclusions (2021-2030)* represents a positive step towards addressing these challenges. It is

expected to increase work-based learning opportunities to raise the relevance of secondary vocational education and training (VET) programmes for students (OECD, 2021^[2]).

Multi-grade classes are common in BiH schools, especially where resources are limited

Compared to most OECD and EU countries, a distinct feature of the BiH school system is the use of multi-grade classes at lower levels of schooling. This approach helps education systems with limited resources raise coverage rates, without increasing costs associated with having separate teachers and classrooms for each grade level. Similar to other Western Balkan economies, multi-grade classes in BiH are concentrated in rural and remote areas where the number of students might be low. In FBiH, multi-grade classes can be found in as few as 3% of schools in Sarajevo Canton to almost 30% in the West Herzegovina Canton (World Bank, 2019^[30]). In Brčko District, these classes exist in 20% of primary schools (i.e. three of the district's 15 primary schools). Multi-grade classes can be a source of concern for educational equity and quality, as these learning environments are often more challenging for teachers to manage because they must adapt their practice to respond to greater diversity of students' ages and abilities (ibid). They also have an impact on the amount and use of learning time in the classroom.

School networks are not aligned with the country's demographic changes

Similar to many Western Balkan economies, BiH faces low fertility rates and high emigration, which has a direct impact on the number of students in the education system. However, the pace of demographic decline has been uneven across the country: in the RS entity, population decreases started in the early 2000s but were only visible in FBiH around 10 years later (USAID, 2016^[42]). Overall, the youth population of BiH (0-24 year-olds) is expected to decrease 15% by 2033 (World Bank, 2019^[30]). Despite the general (and expected) decline in student numbers, the total number of teachers in BiH has increased. While this scenario usually calls for a revision of school networks, very few initiatives have been taken at the state-level to address this problem because such decisions fall under the responsibility of the 12 competent education authorities. At the same time, some individual entities and cantons have tried to address the imbalance within their jurisdictions. For example, Sarajevo Canton introduced a policy to merge schools with low student populations but faced resistance from teacher unions and the effort was unsuccessful (USAID, 2016^[42]). The RS Education Development Strategy 2016-2021 also sets out a goal of "... harmonising the school network with demographic, economic and social changes in society"; however, concrete actions to achieve this objective have not yet been taken. Without stronger collaboration and strategic planning, education authorities in BiH risk worsening already significant resource challenges.

Main trends in participation, learning and equity

Participation

Pre-school participation is growing but coverage is still limited

Policies to make some pre-primary education mandatory for all children in BiH has helped increase participation in this level of education. For example, the number of children in early childhood education and care (ECEC) increased by 10% across BiH from the 2017/18 to the 2018/19 school year (BHAS, 2019^[43]). However, there was a recent decline in ECEC enrolment levels in 2020/21, which was probably linked to disruptions caused by the COVID-19 pandemic. Despite general progress, BiH's ECEC enrolment rate continues to be one of the lowest in Europe. In 2018, gross enrolment in pre-primary education (ISCED 02) in BiH was 25%, compared to the Western Balkan average of 53% and the EU and OECD averages of 98% and 81% respectively (OECD, 2021^[2]). Some reasons for low levels of participation can be linked to the lack of infrastructure and limited funding allocated to ECEC institutions, especially in urban

areas, for which demand is high. For example, there is an issue of availability of pre-school facilities in Sarajevo and Banja Luka, and 30 of the country's 143 municipalities do not offer pre-school programmes (World Bank, 2019_[30]).

The number of students in basic and secondary education is declining, mainly as a result of demographic changes

BiH only reports net figures of enrolment and does not calculate or report gross or net enrolment rates at the state or entity-level (see Table 1.2). However, World Bank estimates, based on competent education authority and UN Population data, suggest that the country's gross enrolment rate was around 90% for primary education and 77% for secondary education, as of 2018 (World Bank, 2019_[30]). The BiH Agency for Statistics reports on overall numbers of enrolment, which prior to the COVID-19 pandemic showed a 19% drop in the total number of students enrolled in basic education (ISCED 1 and 2) across the country from the school year of 2009/10 to 2017/18 (BHAS, 2019_[43]). At the upper-secondary education level, total enrolments started to decrease in 2014, with the number of students dropping by 20% between 2013/14 and 2017/18 (BHAS, n.d._[44]). One of the factors explaining these decreasing trends in enrolment levels at both basic and upper secondary education is the demographic decline faced by the country, which is also the reality for most of the Western Balkan region and other parts of Europe.

Table 1.2. Net figures of student enrolment, disaggregated by administrative unit

	Number of students enrolled in pre-school (2018)*	Number of students enrolled in primary schools (2018)*	Number of students enrolled in secondary schools (2018)*			Total number of students (2018)*	Share of total students in BiH
			General	TVET	Other		
FBiH							
Una-Sana	1 398	21 862	1 820	7 350	326	32 756	8%
Canton 10	408	4 602	674	1 278	5	6 967	2%
West Herzegovina	901	7 651	1 490	2 283	30	12 355	3%
Central Bosnia	1 034	20 953	2 021	7 545	521	32 074	8%
Herzegovina-Neretva	2 317	17 230	2 425	5 251	413	27 636	7%
Zenica-Doboj	2 017	33 501	3 422	10 229	355	49 524	12%
Sarajevo	4 221	37 077	5 199	9 763	964	57 224	14%
Tuzla	2 484	38 026	2 792	12 425	749	56 476	13%
Bosnian Podrinje	155	1 884	184	780	0	3 003	1%
Posavina	158	2 246	226	934	0	3 564	1%
TOTAL	15 093	185 032	20 253	57 838	3 363	281 579	67%
RS							
TOTAL	10 240	90 995	8 875	30 831	125	141 066	33%
Brčko District							
TOTAL	-	-	-	-	-	-	-
Bosnia and Herzegovina							
TOTAL	25 333	276 027	29 128	88 669	3 488	422 645	100%

* Calculations from the World Bank (2019_[30]) presented in their *Bosnia and Herzegovina: Review of Efficiency of Services in Pre-University Education* report, which does not include numbers from Brčko District when it comes to data from the education sector. "Other" includes religious, arts, and special education schools.

Source: Adapted from *Bosnia and Herzegovina: Review of Efficiency of Services in Pre-University Education*, <http://documents.worldbank.org/curated/en/719981571233699712/pdf/Bosnia-and-Herzegovina-Review-of-Efficiency-of-Services-in-Pre-University-Education-Phase-I-Stocktaking.pdf>, (accessed on 3 March 2020).

BiH has high levels of youth educational attainment but participation in higher education remains limited and graduates face a difficult transition into the labour market

Educational attainment in Bosnia and Herzegovina is one of the highest among Western Balkan economies. According to data from 2017 (the latest date for which comparable data is available for BiH), the country reported a high proportion of persons aged 20-24 who had attained at least upper secondary education (94%); similar to Montenegro (95%), Serbia (93%) and North Macedonia (89%) (Eurostat, 2019^[45]). These shares were much higher than the EU average of 83% (Eurostat, 2019^[45]). However, progress in higher education remains a challenge. For example, the share of 30-34 year-olds in BiH who had attained tertiary education (24%) was lower than Western Balkan peers, including Montenegro (34%), Serbia (31%) and North Macedonia (29%), as well as the EU average of 40%. Moreover, there is some evidence that individuals who enter and complete tertiary education are not fully prepared to transition into the labour market. Many employers are dissatisfied and complain not only about the lack of people with higher education but also about the quality of the higher education sector (Balkan Insight, 2019^[46]).

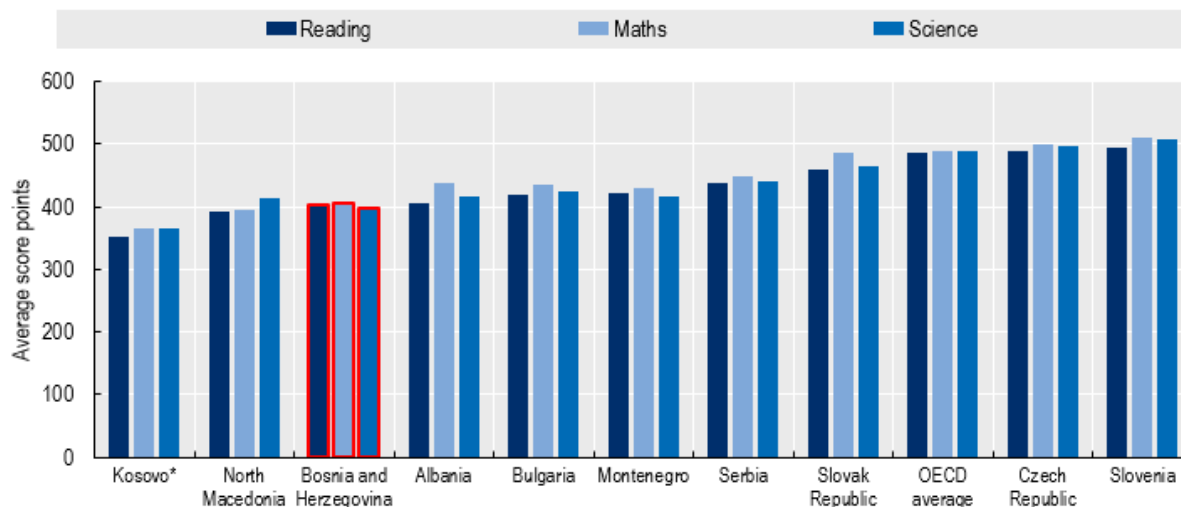
Learning environment and outcomes

International assessment results for BiH are similar to Western Balkan neighbours


BiH participated in the OECD Programme for International Student Assessment (PISA) for the first time in 2018. This was only the second time BiH had participated in a large-scale international survey of student learning, the first being TIMSS in 2007. As a result, there is very limited trend data available on the BiH education system and the lack of an external assessment leaves actors without regular, comparable information about learning environments and outcomes within the country. In TIMSS' 2019, only 1% of 4th grade students in BiH reached the advanced international benchmark in mathematics, and only 9% reached the high international benchmark (IEA, 2021^[47]). This compares to an international average of 7% and 34% respectively (ibid). In comparison to some of its neighbouring countries, BiH students performed worse in science (459) than their counterparts in Bulgaria (521) and Serbia (517), but similar to Montenegro (453) and North Macedonia (426), where score differences were not statistically significant (IEA, 2021^[47]).

Data from PISA reveals that at age 15, students in BiH achieved similar scores as their peers in other Western Balkan economies but performed lower than the OECD average (Figure 1.6). However, around 41% of students in the country did not achieve the minimum level of proficiency (defined as Level 2) in all three domains assessed by PISA (OECD, 2019^[48]). This share is much higher than the average among OECD countries (13%) and higher than the Western Balkan average (39%). According to the 2018 World Bank Human Capital Index, children in BiH are expected to complete around 11.7 years of schooling by the age of 18 however, when taking into account the quality of education, this number is equivalent to only 8.6 years of effective education (World Bank, 2018^[49]).

Figure 1.6. Student's proficiency in PISA across all domains, PISA 2018



Source: (OECD, 2019^[48]), *PISA 2018 Results (Volume I): What Students Know and Can Do*, <https://doi.org/10.1787/5f07c754-en>.

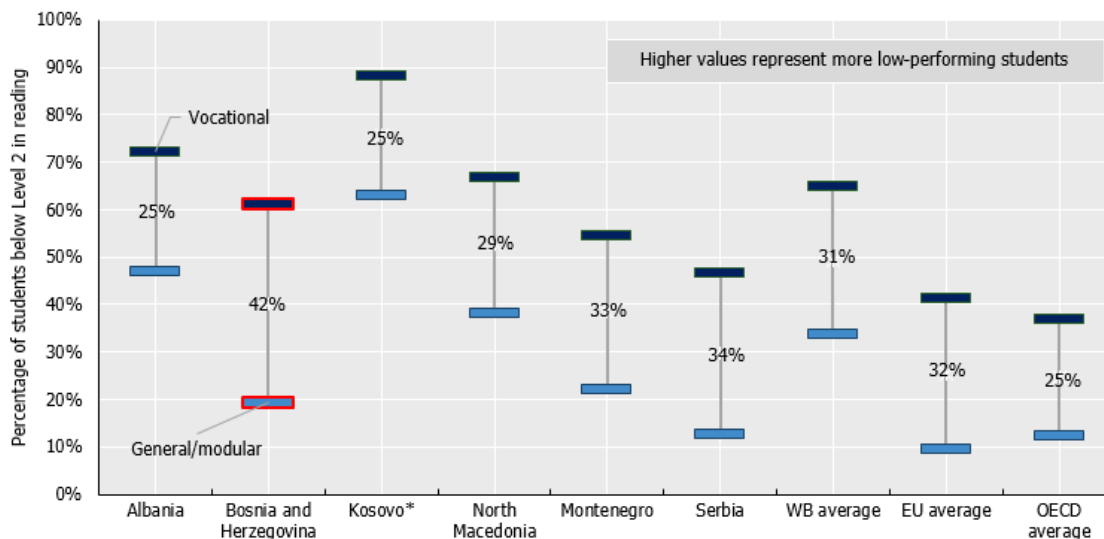
StatLink  <https://stat.link/bgzy8j>

Gaps in learning outcomes between general and VET students are high

Low employment rates of youth and recent graduates partly indicate the long-standing issues within the BiH education sector. One of these challenges is the quality of VET education in BiH. According to PISA 2018, significant gaps in core reading and numeracy skills exist between students in VET versus students in general education. While this is common among many countries with large VET sectors, 19% of students in general education in BiH were low performers, compared to 61% of VET students (Figure 1.7). This is the biggest difference (42%) seen among Western Balkan countries and is especially concerning since the majority (around 77%) of upper secondary students in BiH are enrolled in VET programmes (OECD, 2021^[2]). Efforts to improve the quality of VET must therefore address not only concerns around labour market recognition and relevance, but also the need to improve students' core cognitive skills. Both will be important to reducing the disparities in learning outcomes and life chances between VET and general students. The new BiH-level strategic document for VET has the potential to support VET students in mastering the competences needed to successfully transition into the labour market (OECD, 2021^[2]).

Figure 1.7. PISA 2018 low-achieving students and education programmes

Differences in performance between students in upper-secondary education



Source: Adapted from (OECD, 2021^[2]), *Competitiveness in South East Europe 2021: A Policy Outlook*, <https://doi.org/10.1787/dcbc2ea9-en>.

StatLink  <https://stat.link/4tbl2>

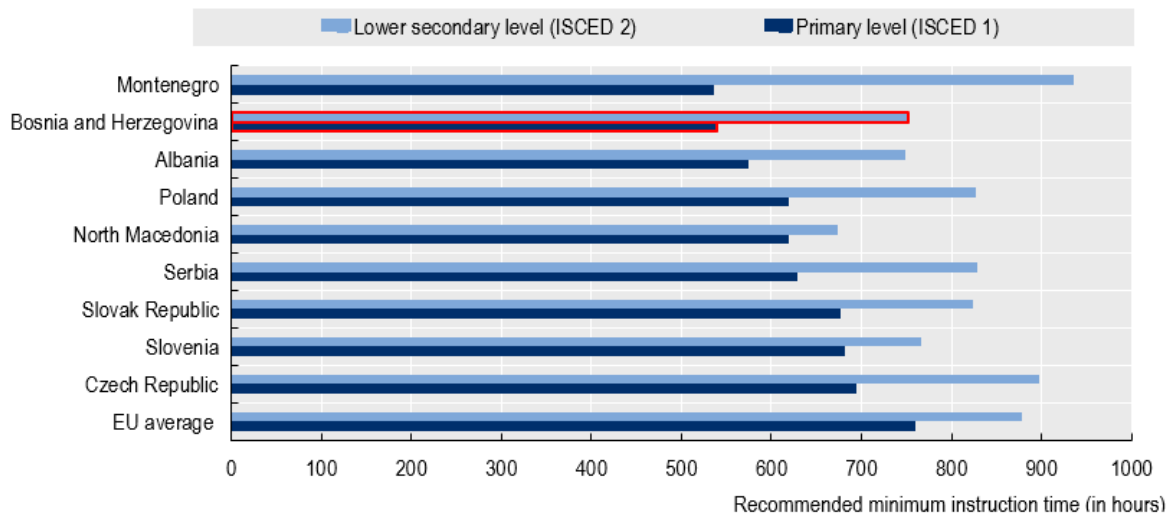
Truancy and the disciplinary climate in schools appear to undermine learning

Data from PISA 2018 suggests that student truancy is an important issue within BiH schools. Students in the country are more likely to report that they skipped classes (46.5%) compared to the OECD average (21.3%) (OECD, 2019^[50]). BiH also has a low score in PISA's index of disciplinary climate (0.08 in a scale of 0 to 1) indicating that students perceive their lessons to be more susceptible to disruption than students in neighbouring countries such as Albania (0.84) or Montenegro (0.44) (OECD, 2019^[50]). Student truancy and classroom disruptions can have adverse consequences for students. Truants are more likely to fall behind in their learning or even to drop out of school (ibid). This issue is a particular concern for the most vulnerable populations in BiH, including socio-economically disadvantaged students and minority groups.

Students receive fewer hours of instruction for compulsory education than peers in neighbouring countries

While the duration of compulsory education in BiH is only slightly shorter than the average across the OECD and EU, BiH has one of the lowest total instruction times compared to neighbouring countries with the same amount of mandatory education, in particular for the primary education level (Figure 1.8). The amount of instruction time is an important indication of students' opportunities to learn. Where learning takes place can also influence learning outcomes, as students tend to perform better if a high percentage of their learning time takes place during normal school hours (OECD, 2013^[51]). The time allocated for learning, coupled with quality instruction can positively contribute to better student achievement (European Commission/EACEA/Eurydice, 2019^[52]).

Figure 1.8. Minimum instruction time in hours for the compulsory curriculum for each education level, 2018/19



Note: Countries are in descending order, based on instruction time in primary level.

Source: (European Commission/EACEA/Eurydice, 2019^[52]), *Recommended Annual Instruction Time in Full-time Compulsory Education in Europe 2017/18*, <https://doi.org/10.2797/714725>.

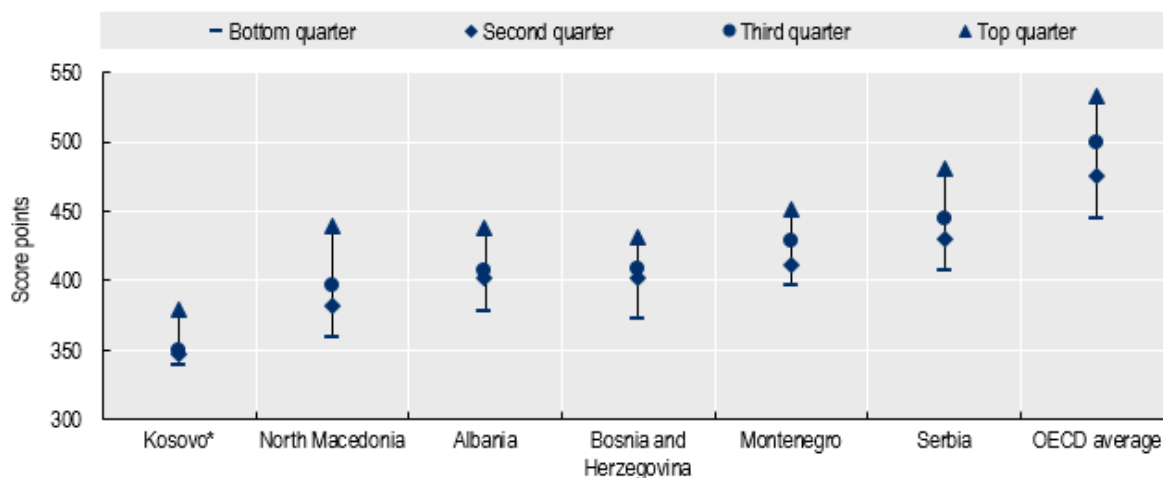
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Equity


Although socio-economic conditions in BiH have a smaller impact on student outcomes compared to OECD and neighbouring countries, a large share of students underperform

Within BiH, advantaged³ students tend to have higher results in all three PISA domains compared to disadvantaged students, as it is also the case for most OECD countries. In reading however, BiH has one of the smallest performance gaps between disadvantaged students and those coming from wealthier families in comparison with its neighbouring countries (Figure 1.9). This suggests that socio-economic status does not play such a significant role in explaining variance in student performance. However, such low levels of socio-economic inequalities in education may also be the result of the overall poor learning outcomes of all students.

Figure 1.9. Performance in reading by quarters of the PISA index of economic, social and cultural status, PISA 2018



Source: (OECD, 2019^[53]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, <https://doi.org/10.1787/b5fd1b8f-en>.

StatLink  <https://stat.link/nc3opj>

Advantaged schools have a higher proportion of teachers who hold at least a master's degree compared to disadvantaged schools

According to PISA 2018, 86% of teachers were “fully certified” to work as a teacher on average across OECD countries. In BiH, this number was even higher, at around 96% (OECD, 2019^[53]). Each sub-state education system within BiH sets their own requirements and qualification levels for teacher certification, which typically requires teachers to have at least a Bachelor's degree (ISCED 6). Data from PISA also reveals that only 9% of teachers in BiH reported having a master's degree level, compared to 44% among OECD countries. This percentage is similar to the situation in other Western Balkan economies, such as Montenegro and North Macedonia (both around 7%), but much lower than in Kosovo* (49%), Albania (65%) and Serbia (31%) (OECD, 2019^[53]). Moreover, the number of teachers holding a master's degree is even lower in disadvantaged schools, which compared with advantaged schools, have around 11% less teachers with such a qualification level, compared to an OECD average of 7% (ibid).

Segregation along ethnic lines continues in some schools

All public primary schools in BiH operate within a catchment area that organises student enrolment based on domicile location. This policy attempts to curtail segregation in BiH schools, which has also been one of the Council of Europe's post-accession conditions since 2002 (Council of Europe, 2018^[54]). However, the “Two Schools Under One Roof” policy, whereby co-located schools have different curricula and instructional practices based on a particular ethnic group (e.g. Bosniaks and -Croats children follow classes within the same school building but in different shifts and languages of instruction), still exist in some parts of the country (Kreso, 2012^[55]; OSCE, 2018^[56]). This policy was created in the post-war period as a temporary measure to encourage the return of refugees and displaced people, as well as to reverse the ethnic homogenisation (OSCE, 2018^[56]) (OSCE, 2018^[56]). Around 56 schools still operate under this policy (OSCE, 2018^[56]). Segregation policies pose a serious threat to reconciliation initiatives and the country's future stability (ibid).

The COVID-19 pandemic has increased inequalities in education

Like many countries around the world in early 2020, BiH education systems had to rapidly transition from in-person to alternative forms of teaching and learning because of the COVID-19 pandemic. The different administrative units in BiH made use of a diverse range of approaches to remote learning, including using TV, radio and online learning platforms (BiH, 2021^[28]). While the majority of students in the country were able to benefit from these continuous learning opportunities, the most vulnerable students struggled to adapt, especially those from socio-economically disadvantaged backgrounds and Roma communities. Roma children were disproportionately affected - representing at least 6% of the students who lacked access to information and communications technology or the Internet during the pandemic (UN, 2020^[57]). Students with disabilities, whose right to education is narrowly defined in BiH as having “access” to educational opportunities (regardless of the setting or whether they actually participate), are also at risk of falling further behind because of the pandemic. International research suggests that including these students in distance learning entails additional challenges in an already complex situation (UNICEF, 2017^[58]; OECD, 2020^[59]).

Most of BiH returned to full-time in-person instruction at the start of the 2021/22 school year. However, as governments redirected education budgets from the state-level and across administrative units to other affected sectors, the need for strategic planning in education has become even more important to ensure learning continuity and address the specific needs of the most vulnerable students. Addressing educational inequities that were exacerbated by the pandemic will be key to BiH’s post-COVID recovery efforts.

Key indicators

#	List of key indicators	Bosnia and Herzegovina	OECD
Background information			
Economy			
1	GDP per capita PPP, constant 2017 international \$ (2020) (World Bank)	14 509	42 438
2	GDP annual growth rate, (2020) (World Bank)	-4.3	-4.7
Society			
3	Population annual growth rate, (2020) (World Bank)	-0.6	0.4
4	Population aged 14 years or less (%), (2020) (World Bank)	15	18
5	Fertility rate (births per woman), (2019) (World Bank)	1.3	1.7
6	Rural population (% of total population), (2020) (World Bank)	51	19
7	Youth unemployment rate (aged 15-24 years old), (2019) (modelled ILO estimate, World Bank)	34	12
	Total unemployment rate, (2020) (modelled ILO estimate, World Bank)	17	7
Education indicators			
System			
9	Official entrance age of pre-primary education, (2020) (UNESCO-UIS)	3	3
9	Official entrance age of compulsory education, (2020) (UNESCO-UIS)	6	5.6
10	Duration of compulsory education (years), (2020) (UNESCO-UIS)	9	11
Students			
11	Net enrolment rate, primary education, (2019) (UNESCO-UIS)	-	99
	Net enrolment rate, lower secondary education, (2019) (UNESCO-UIS)	-	98
	Net enrolment rate, upper secondary education, (2019) (UNESCO-UIS)	79	93
12	Share of students enrolled in vocational programmes in upper secondary level, (2019) (UNESCO-UIS)	77	43
13	Share of primary students enrolled in private schools, (2018) (UNESCO-UIS)	2	12
	Share of lower secondary students enrolled in private schools, (2019) (UNESCO-UIS)	1	16
	Share of upper secondary students enrolled in private schools, (2018) (UNESCO-UIS)	4	21
Teachers			
14	Ratio of students to teaching staff, primary education, (2017) (UNESCO-UIS)	-	15

#	List of key indicators	Bosnia and Herzegovina	OECD
	Ratio of students to teaching staff, lower secondary education, (2017) (UNESCO-UIS)	-	14
	Ratio of students to teaching staff, upper secondary education, for BiH (2021), BHAS*; (2017) (UNESCO-UIS)	12	13
15	Share of female teachers, pre-primary education, for BiH (2021), BHAS; (2019) (UNESCO-UIS)	94	96
	Share of female teachers, primary education, for BiH (2021), BHAS; (2019) (UNESCO-UIS)	88	82
	Share of female teachers, lower secondary education, for BiH (2021), BHAS; (2019) (UNESCO-UIS)	64	69
	Share of female teachers, upper secondary education, for BiH (2021), BHAS; (2019) (UNESCO-UIS)	62	60
Finance			
16	Total government expenditure on education as % of GDP, all levels, (2017) (UNESCO-UIS)	-	5.2
17	Government expenditure on pre-primary education as a % of GDP, (2018) (UNESCO-UIS)	0.09	0.5
	Government expenditure on primary education as a % of GDP, (2018) (UNESCO-UIS)	0.6	1.4
	Government expenditure on secondary education as a % of GDP, (2018) (UNESCO-UIS)	2.4	1.9
18	Initial government funding per pre-primary student, constant USD PPP (2018) (UNESCO-UIS)	2 337	8 191
	Initial government funding per primary student, constant USD PPP (2018) (UNESCO-UIS)	1 897	9 167
	Initial government funding per lower secondary student, constant USD PPP (2018) (UNESCO-UIS)	5 791	10 571
	Initial government funding per upper secondary student, constant USD PPP (2018) (UNESCO-UIS)	3 973	10 047
Learning outcomes			
19	Mean students' performance in reading (PISA 2018)	403	487
	Mean students' performance in mathematics (PISA 2018)	406	489
	Mean students' performance in science (PISA 2018)	398	489
20	Percentage of students below PISA Proficiency Level 2 in reading (PISA 2018)	54	23
21	Variation in reading performance explained by student's socio-economic background (PISA 2018)	7	12

Source: (World Bank, 2022^[71]), World Bank Open Data, <https://data.worldbank.org/> (accessed on January 17 2022); (UNESCO UIS, 2021^[33]), UIS database, <http://data.uis.unesco.org/> (accessed on 13 October 2021); (OECD, 2019^[48]), *PISA 2018 Results (Volume I): What Students Know and Can Do*, <https://doi.org/10.1787/5f07c754-en>; (BHAS, n.d.^[44]), Agency for Statistics of Bosnia and Herzegovina, <https://bhas.gov.ba/> (accessed on 13 October 2021).

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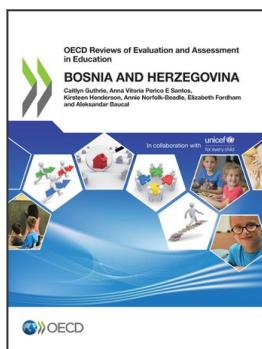
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Notes

¹ All references to Kosovo, whether the territory, institutions or population, in this text are without prejudice to positions on status and shall be understood in full compliance with United Nations Security Council Resolution 1244/99 and the Advisory Opinion of the International Court of Justice on Kosovo's declaration of independence.

² The coverage index includes access to services in five priority areas – education, healthcare, housing, documentation and labour markets.

³ PISA defines a socio-economically disadvantaged (or advantaged) school as a school in the bottom (or top) quarter of the index of economic, social and cultural status (ESCS) in the country/economy in question.



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