OECD Reviews of Evaluation and Assessment in Education

BOSNIA AND HERZEGOVINA

Caitlyn Guthrie, Anna Vitoria Perico E Santos, Kirsteen Henderson, Annie Norfolk-Beadle, Elizabeth Fordham and Aleksandar Baucal

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Foreword

Bosnia and Herzegovina (BiH) has expanded access to school education in recent years and international assessments reveal that student achievement is similar to other Western Balkan economies. However, international data also shows that a large share of students in BiH leave school without mastering basic competences and overall performance lags behind the average learning outcomes achieved in OECD and EU countries. The complex governance structure in BiH and limited collaboration across government partners, as well as a range of capacity constraints and the inefficient allocation of resources hinders collective efforts to improve teaching and learning in the country.

Policymakers in BiH should strengthen collaboration between competent education authorities and state level actors to develop targeted and realistic policy reforms. Establishing a culture of evidence-informed policymaking can also help to improve educational outcomes by promoting more accountability and transparency across the country's education systems and providing quality learning opportunities for all students. Such efforts are crucial to BiH's economic development and social prosperity.

The OECD and UNICEF undertook this review of evaluation and assessment in the education systems of BiH, in close collaboration with the Ministry of Civil Affairs of Bosnia and Herzegovina and competent education authorities (CEAs) at the entity, district and canton level. In particular, this review provides an international perspective on the country's educational assessment and evaluation systems and offers recommendations to help BiH capitalise on promising policies and practices that support student learning. The proposals included in this report put teaching and learning as the heart of these practices, meaning that student assessments, teacher appraisals and both school and system evaluations all contribute to the ultimate goal of helping students learn.

This review builds on the longstanding collaboration between the OECD Directorate for Education and Skills and UNICEF. It has benefitted from our organisations' complementary experience and expertise, providing context-specific analysis of evaluation and assessment in BiH's education systems.

Above all, we hope that this review will be a useful reference for Bosnia and Herzegovina in its reforms of these systems. As state authorities continue their efforts to provide a common education framework for students all across the country , this review offers informed guidance to assist decision-makers in achieving this and other goals. We hope that this review contributes to the development of education systems that helps every student succeed.

Andreas Schleicher
Director for Education and Skills and Special Advisor on Education Policy to the OECD Secretary-General

Rownak Khan
UNICEF Representative to Bosnia and Herzegovina

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The review team would also like to give a special thanks to the Government of Bosnia and Herzegovina, under the leadership of the Ministry of Civil Affairs, for inviting the OECD to conduct this review and for the ministry's valuable support and contributions. The review equally benefitted from contributions made by the Ministry of Education and Culture of Republika Srpska; the Department for Education of the Government of the Brčko District; the Federal Ministry of Education and Science of the Federation of BiH; the Ministry of Education, Science, Youth, Culture, and Sports of the Central Bosnia Canton; the Ministry of Education and Upbringing of the Sarajevo Canton; and the Ministry of Education, Science, Culture and Sports of the West Herzegovina Canton. We are very grateful to the pedagogical institutions and institutes that participated in the review, and other government actors who shared their insights and knowledge with us, in particular officials from the Agency for Pre-Primary, Primary and Secondary Education (APOSO); the Agency for Higher Education Development and Quality Assurance (HEA); the Agency for Statistics of Bosnia and Herzegovina, as well as the statistical agencies of the Federation of Bosnia and Herzegovina, of Republika Srpska and of the Brčko District.

The OECD review team was led by Elizabeth Fordham (OECD Secretariat), co-ordinated by Caitlyn Guthrie (OECD Secretariat) and included Annie Norfolk Beadle (formerly OECD Secretariat), Anna Vitória Périco e Santos (OECD Secretariat), Kirsteen Henderson (external education consultant), as well as Aleksandar Baucal (Professor at the Faculty of Philosophy, University of Belgrade). The review team is grateful for the support and advice of Andreas Schleicher, OECD Director for Education and Skills, and Paulo Santiago, Head of the Policy Advice and Implementation Division, OECD Directorate for Education and Skills. Karol Łuczka (OECD Secretariat) provided research support. Anne-Victoire Suteau provided administrative support and Marika Prince provided editorial support and helped organise the publication process. Rachel Linden also helped to prepare the draft for publication.

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Abbreviations and acronyms

APOSO	Agency for Pre-school, Primary and Secondary Education
BAM	Bosnia and Herzegovina Convertible Mark
BD	Brčko District
BHAS	Agency for Statistics of Bosnia and Herzegovina
BiH	Bosnia and Herzegovina
CCC	Common Core Curriculum Based on Learning Outcomes
CEA	Competent Education Authority
ECEC	Early Childhood Education and Care
EMIS	Education Management Information System
ESCS	PISA index of economic, social and cultural status
EU	European Union
FBiH	Federation of Bosnia and Herzegovina
GDP	Gross Domestic Product
HEI	Higher Education Institution
ICT	Information and Communications Technology
ISCED	International Standard Classification of Education
ITE	Initial Teacher Education
MoCA	Ministry of Civil Affairs
NEET	Not in Education, Employment or Training
NESA	National Education Standards Authority
NGOs	Non-governmental organisations
PIRLS	Progress in International Reading Literacy Study
PISA	Programme for International Student Assessment
PPP	Purchasing Power Parity
RS	Republika Srpska
STEM	Science, Technology, Education and Mathematics
TALIS	Teaching and Learning International Survey
TIMSS	Trends in International Mathematics and Science Study
TVET	Training and Vocational Education Training
UIS	UNESCO Institute for Statistics
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VET	Vocational Education Training

Executive summary

Education has a key role to play in supporting COVID-19 recovery efforts in Bosnia and Herzegovina (BiH) and helping the country to achieve more inclusive and sustainable growth. In recent years, BiH administrative units have taken steps to improve their various education systems by integrating the Common Core Curriculum Based on Learning Outcomes (CCC) and by participating in international assessments of student learning, like the Programme for International Student Assessment (PISA) and the Trends in International Mathematics and Science Study (TIMSS). However, BiH continues to face sizeable educational challenges. While the country achieves good levels of participation in schooling, data from PISA reveal that the average learning outcomes remain lower than in EU countries and large shares of students leave school without mastering basic competences. Moreover, the country's decentralised governance structure and limited co-operation among government partners creates significant challenges for setting strategic objectives, policy coherence, and ensuring the effective delivery of public services.

Evaluation and assessment policies can provide a lever for improving teaching and learning across BiH. A sound evaluation and assessment framework will establish standards and expectations for different actors, allow them to periodically review performance and help identify where adjustments may be needed. This review examines policies and practices related to evaluation and assessment in BiH's school sector with the goal of providing recommendations to help develop reforms and prioritise future investments that support all children in mastering the competences they need for success in education, work and life. In particular, this review calls upon policymakers in BiH to prioritise a targeted set of sustainable policy reforms that extend beyond election cycles. By providing BiH with technical recommendations for the short and long-term, this report aims to influence the political debate around education in the country to focus actors on what matters most: student learning.

Raising the educational value of student assessment

Education systems in BiH have taken steps to introduce new competence-based curricula and some have introduced formative student assessment policies, such as the use of qualitative descriptors to accompany quantitative scores. However, these reforms have not led to real changes in classroom practices, in part because they have not been accompanied by adequate tools and support for teachers. As a result, classroom assessments do not encourage student learning as well as they might and there remains a narrow emphasis on summative testing. Expectations of student learning outcomes are also not clearly or consistently signalled and measured, as there are very few examples of standardised external assessments and examinations within BiH. Finally, limited state-level co-operation also prevents the country from securing regular participation in international assessments, such as PISA. As a result of this context, grade inflation is a major concern, especially at transition into secondary education (ISCED 3), when teachers face pressure to provide grades that enable students to access their study programme of choice. BiH needs more objective and reliable assessment measures to support students in their learning and signal to employers and higher education institutes their mastery of core competences. Addressing these challenges and leveraging the educational value of assessment will be key to raising learning outcomes and developing human capital across BiH education systems.

Supporting and motivating teachers to improve their teaching practice

In Bosnia and Herzegovina, competent education authorities are beginning to promote the more student-centred teaching and learning approaches that are becoming increasingly common across OECD and EU countries. However, teaching practices have been slow to change, largely due to a lack of supports and incentive structures that would encourage the adoption of new approaches to help all students develop core competences. Resource and capacity limitations make these efforts even more challenging. For example, the bodies responsible for organising or delivering training to teachers in BiH – typically a pedagogical institute or equivalent – often lack sufficient staff and funding. Competent education authorities therefore need to be both efficient and systematic in supporting teachers to develop modern approaches to pedagogy. Professional teacher standards can serve as a foundation for building the supports and incentives that encourage desired teaching practices. For example, they can serve as a reference for providing more relevant initial teacher education programmes and continuous professional development opportunities. Competent education authorities can also leverage the potential of digital technology and in-school learning activities to help as many teachers as possible develop their practices. Furthermore, new formative and summative teacher appraisal processes, if well designed, can help teachers focus on developing their practices and reward them for their efforts.

Building evaluation capacity to support at-risk schools and develop school leadership

In recent years, several competent education authorities in BiH have moved away from an administrative, compliance-orientated approach to school quality assurance towards more evaluation-based procedures focused on developing instructional practices. In OECD countries, such evaluations also generate information that can be used to inform school improvement policies and provide a system-wide perspective of school quality. However, most of the education authorities in this review conduct “snapshot” reviews of schools in lieu of external school evaluations that would yield this type of data. Specifically, the reviews are not based on consistent standards of school quality, which makes it difficult for authorities to form reliable judgements about school performance and to determine where to direct school improvement supports. Given the considerable resource and capacity constraints facing many competent education authorities, education officials will need to use resources pragmatically and prioritise schools that are most in need of support to assist student learning. Specifically, all competent education authorities should develop consistent school quality indicators to identify and target supports to at-risk schools. This in turn requires authorities to build the capacity of pedagogical institutes or their equivalents to provide hands-on support to schools. Furthermore, authorities should encourage schools to conduct self-evaluations to drive their own development. Such efforts can help improve teaching and learning environments in BIH to raise outcomes for students.

Improving co-ordination around system evaluation to guide improvements

There are many examples of individual policies within BiH that aim to improve the quality of education, such as the school quality standards in Republika Srpska or the performance-based appraisals for teacher promotion in Central Bosnia Canton. However, all competent education authorities face system evaluation challenges and the lack of co-operation at the state level reduces their ability to collectively set meaningful goals and use evidence for accountability and improvement purposes. In particular, there are no current strategic documents or platforms at the BiH-level related to primary and secondary schooling. Moreover, previous attempts at state-level initiatives, from implementing the CCC and occupational teacher standards to establishing a country-wide education management information system (EMIS), have not been met with the support and buy-in needed to have their desired impact on the education sector. Competent education

authorities could strengthen system evaluation through greater collaboration and co-ordination at the country level, which would enable them to pool resources and share experiences. Generating richer education data to support benchmarking within and beyond BiH, and using this data to inform a more transparent and evidence-based dialogue around addressing the country's education challenges will be an important first step but will require a large degree of political will. BiH should strive to set long-term goals for the sector that extend beyond individual political mandates and help establish common ground among stakeholders about what matters most: supporting all students to develop their core competences.

Assessment and recommendations

Introduction

Improving education outcomes is key to supporting inclusive growth in Bosnia and Herzegovina

Over the last two decades, Bosnia and Herzegovina (BiH) has become a middle-income country and made some progress to improve the socio-economic development and quality of life of its population (European Commission, 2021[1]). However, gross domestic product (GDP) per capita remains one of the lowest in the region, indicating the country's ongoing struggle to raise productivity and living standards. As of 2015, around 17% of the BiH population was living below the poverty line and there are large regional disparities in terms of access to services and well-being outcomes (World Bank, 2020[2]). Similar to other countries in Europe, the COVID-19 pandemic has led to a contraction in the BiH economy, exacerbating challenges that were already present, such as raising revenue for public services and allocating resources efficiently. Recovery efforts and future growth will depend on the extent to which BiH governments can address structural challenges, including demographic shifts, high levels of unemployment, especially among youth, and the need for investment in infrastructure and human capital.

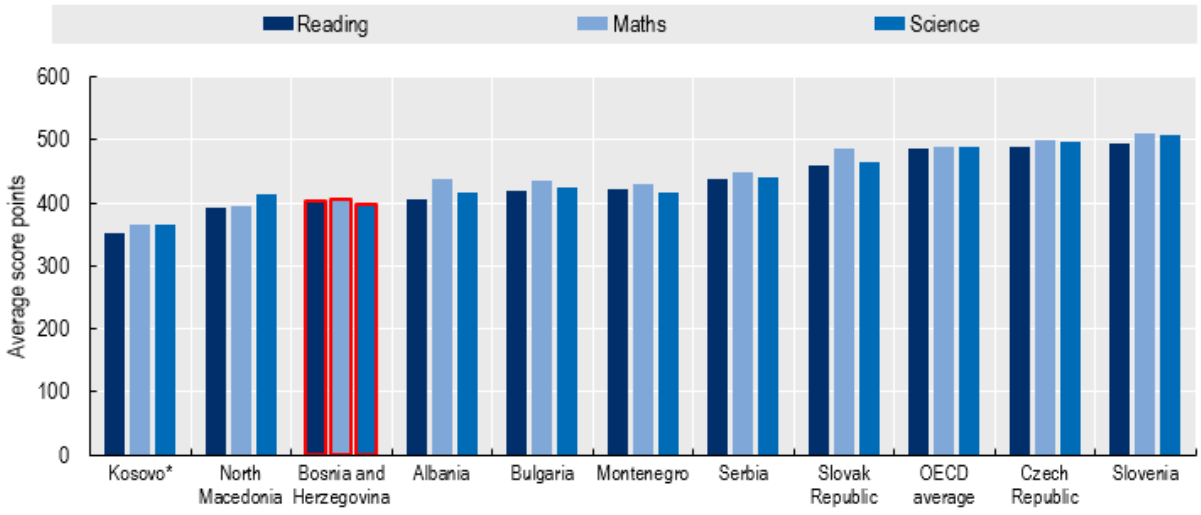
A complex education governance structure presents challenges for reform efforts

Education has a key role to play supporting BiH's COVID-19 recovery efforts and helping the country to achieve more inclusive growth and social cohesion. However, the decentralised governance structure and lack of co-operation at the state level creates significant challenges for setting strategic objectives, policy coherence, and ensuring the effective delivery of public services. There are fourteen "administrative units" or governance tiers in BiH: one at the level of the state (BiH); two entities (Republika Srpska; RS and the Federation of Bosnia and Herzegovina; FBiH); one self-governing district (Brčko District; BD); and ten cantons of the FBiH entity. In the area of education, BiH and FBiH government officials are mainly responsible for policy co-ordination and running country- or federation-level initiatives. Officials from entity, canton and district units are referred to as "competent authorities" and define their own laws and strategies to regulate education policy. BiH also has expert and co-ordination bodies that operate at the state-level (e.g. the Agency for Pre-school, Primary and Secondary Education, APOSO and the Conference of Ministers of Education in BiH (chaired by the BiH Ministry of Civil Affairs)). This complex education governance structure makes it difficult to develop and implement systemic reforms.

Performance on international assessments reveals a need for BiH to raise learning outcomes and address equity concerns

Data from international assessment reveal concerns about the effectiveness of school systems in BiH. For example, data from the Programme for International Student Assessment (PISA) show that despite the country's 15-year-old students performing similarly to their peers in other Western Balkan economies, they are behind the average learning outcomes achieved in OECD and EU countries (see Figure 1). Moreover, around 41% of students in BiH have not achieved the minimum level of proficiency (defined as Level 2) in all three subject areas assessed by PISA; compared to only 13% on average across the OECD (OECD, 2019[3]). Students from disadvantaged communities and families are most likely to achieve poor outcomes and disparities start early. For example, access to quality early childhood education is very limited in BiH, despite its multiple long-term benefits for children, and in particular for children from marginalised backgrounds. 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[4]). The COVID-19 pandemic, like in many other education systems around the world, has also disproportionally affected the country's most vulnerable student populations, including children and young people with disabilities and those from Roma communities. However, there is very limited data and research on educational equity issues in BiH. A stronger culture of evidence-informed policymaking could help to renew focus on providing quality learning opportunities for all students.

Figure 1. Students' proficiency in PISA across all domains, PISA 2018



Source: (OECD, 2019[3]), *PISA 2018 Results (Volume I): What Students Know and Can Do*, https://doi.org/10.1787/5f07c754-en.

StatLink https://stat.link/kzuyd4

Spending on education is higher in BiH than in other Western Balkan economies but there are significant inefficiencies

In 2018, BiH spent around 4.4% of its GDP on education, which was similar to the EU (4.7%) average and slightly higher than neighbouring Western Balkan economies, such as Albania (3.6%, 2017) and Serbia (3.7%, 2018) (UNESCO UIS, 2021[5]). However, the faces significant challenges in terms of resource efficiency. This situation partly relates to the high administrative costs of funding salaries for the civil

servants of 14 separate education authorities (World Bank, 2019[6]). Since local authorities raise their own funding for education, there are also important disparities in provision across and within administrative units. 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).

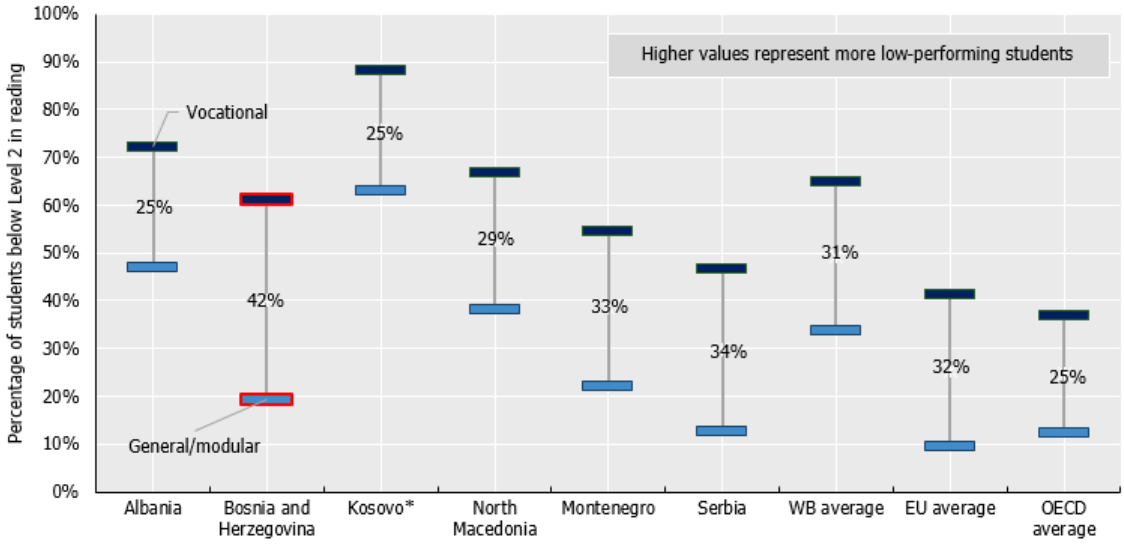
Some competent education authorities use multi-grade classes to raise coverage rates without increasing the costs associated with having separate teachers and classrooms for each grade level. However, these learning environments are often more challenging for teachers to manage and can have an impact on the amount and use of learning time in the classroom. Within this context of inadequate and inequitable education financing, donor agencies often contribute resources for interventions focused on improving educational quality, such as by providing teacher training and investing in school infrastructure. At the same time, gaps in policy continuity, co-ordination and planning, especially in the face of demographic decline, means that it can be difficult to channel donor assistance in a way that generates sustained, systemic improvements to student outcomes.

The majority of secondary students in BiH graduate from technical and vocational programmes but many do not master core competences

According to data from 2017 (the latest date for comparable data), BiH reported a high proportion of persons aged 20-24 who had attained at least upper secondary education (94%), even though this level of schooling is not compulsory in most parts of the country. This attainment rate is similar to Montenegro (95%), Serbia (93%) and North Macedonia (89%), and much higher than the EU average of 83% (Eurostat, 2019[7]). However, various factors undermine the positive social and economic potential of having so many young people complete upper-secondary education (ISCED 3; referred to simply as “secondary education” in BiH). For example, the lack of established standards and measures to check that students are learning as they pass through basic education mean that many are entering secondary school without mastering the competences expected at this level. Moreover, the majority of students (around 77% in 2019) enrol in technical and vocational secondary programmes (VET), many of which are considered to be of low quality compared to highly selective gymnasia (GIZ, n.d.[8]; UNESCO UIS, 2021[5]) (World Bank, 2019[6]) (OECD, 2021[4]). This context, coupled with inequalities in basic education, as well as the weight of school and societal factors in selecting students into secondary pathways, reduces students’ chances of developing relevant technical and vocational skills and consolidating their core academic skills. While it is common among countries with large VET sectors to have gaps in the core reading and numeracy skills of students in VET versus students in general education, only 19% of students in general education in BiH were low performers, compared to 61% of VET students; a much larger difference compared to other countries (Figure 2). As a result, the most disadvantaged students have least chance of acquiring knowledge and skills to progress after graduation. The situation is exasperated later in life, reflected by the country’s low tertiary enrolment rates and high rates of youth unemployment.

Figure 2. PISA 2018 low-achieving students and education programmes

Differences in performance between students in upper secondary education



Note: WB: Western Balkans.
Source: Adapted from (OECD, 2021[4]), *Competitiveness in South East Europe 2021: A Policy Outlook*, https://doi.org/10.1787/dcbc2ea9-en.

StatLink https://stat.link/va9d5u

Evaluation and assessment in Bosnia and Herzegovina

Over the past decade, the OECD has reviewed evaluation and assessment frameworks in over 30 education systems to help identify policies and practices associated with improving educational quality in different contexts. This research revealed three hallmarks of a strong evaluation and assessment framework that promotes the quality and equity of student learning. First, such a framework sets clear standards for what is expected nationally of students, teachers, schools and the system overall. Second, it directs the collection of data on performance, helping to ensure that stakeholders receive the information and feedback they need to reflect critically on their own progress and identify steps that will help them advance. Third, it promotes coherence and alignment, so the whole education system can work in the same direction and use resources effectively. This report recommends ways in which BiH can strengthen its evaluation and assessment framework in the school education sector. The report covers seven BiH administrative units that reflect differences in terms of population size, development levels, governance responsibilities and geographic location. These include: the state level (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).

In recent years, officials from across BiH have been taking steps to improve the country's education systems. For example, the CCC was designed at the state level in consultation with competent education authorities and now serves as a reference for the ongoing development of achievement standards for each grade level and key subject areas. Some competent education authorities have already started to design and implement new curricula in line with this state-level document, but disparities in capacity and political will have contributed to a lack of consistency in the CCC's implementation (World Bank, 2019[6]) (OSCE, 2020[9]). 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 pedagogies that underpin the CCC and have the potential to raise learning outcomes.

BiH also has very limited comparable data about its education sector. For example, the Agency for Statistics of BiH does not report or calculate data on enrolment rates and unlike most EU members and a growing number of Western Balkan economies, there is no external standardised assessment system at the state-level to generate timely data to monitor student learning. Participation in international assessments like the Programme for International Student Assessment (PISA) and Trends in International Mathematics and Science Study (TIMSS) is also unstable, leaving BiH without updated and comparable trend data on system performance. This context makes it very difficult for government officials to make evidence-informed policy decisions. It also leaves many of schools, teachers and the broader public with limited information to hold their governments accountable and help make improvements to teaching and learning.

This review recommends ways that BiH could improve collaboration among competent education authorities to support all children in mastering the competences they need for success in education, work and life. Specifically, the report calls upon policymakers in the country to prioritise a targeted set of sustainable policy reforms that extend beyond election cycles. By providing BiH with technical recommendations for the short and long-term, this report aims to influence the political debate around education in the country to focus actors on what matters most: student learning. Competent education authorities are encouraged to review these recommendations, and adapt those which are most relevant and adequate to meet their own needs and contexts.

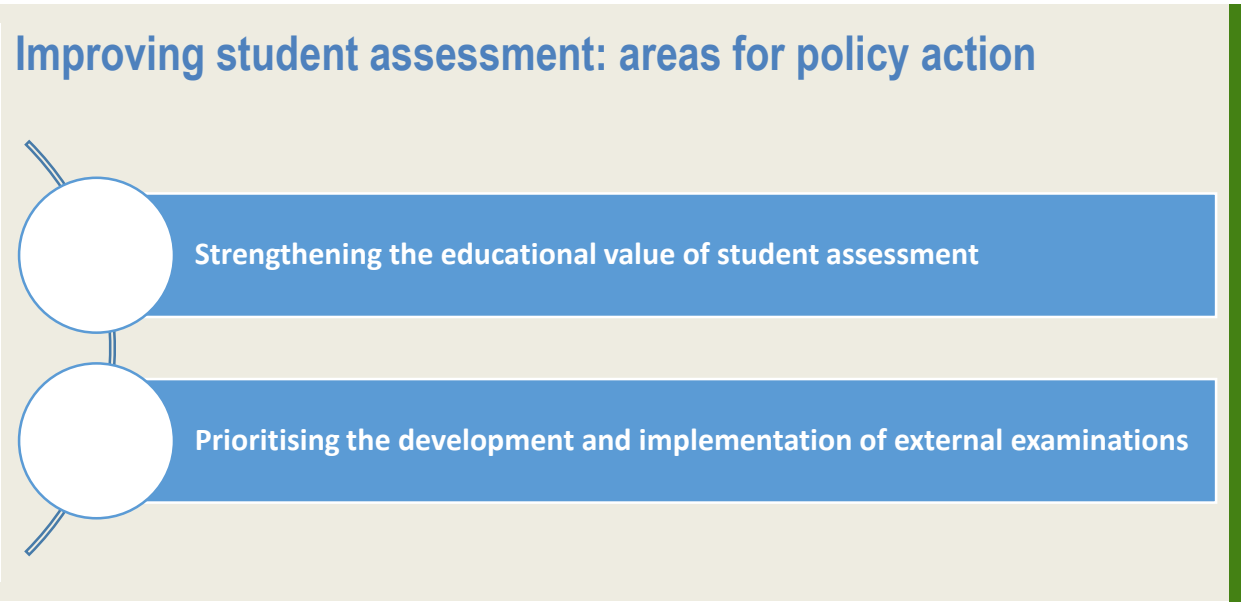
Student assessment supports learning by helping teachers, students and parents determine what learners know and what they are capable of doing. This information can help identify specific learning needs before they develop into serious obstacles and enable students to make informed decisions about their educational pathways.

Education systems in BiH have taken steps to introduce new competence-based curricula and most of the competent education authorities covered by this review have introduced some changes to their student assessment policies, such as the use of qualitative descriptors to accompany quantitative scores or diagnostic “check-in” tests to establish an initial benchmark of student performance. However, these policy reforms have not led to real changes in classroom practices, in part because they have not been accompanied by adequate tools and support for teachers. As a result, teachers’ classroom assessments do not encourage student learning a well as they might be. There remains a narrow emphasis on summative testing and a lack of attention to formative methods or assessments of more complex, higher-order competences.

Expectations of student learning outcomes are also not clearly or consistently signalled and measured. While Republika Srpska (RS), Sarajevo Canton and Tuzla Canton have established external assessments of student learning, the majority of education systems in the country face major capacity and resource constraints that prevent them from developing and using standardised assessments to improve the reliability of teachers’ marking and signal expectations for student learning. These factors, coupled with the limited co-operation among administrative units, prevent BiH from developing standardised assessment practices at the state level, something many Western Balkan and European education systems have either established or are currently developing. Limited state-level co-operation also prevents BiH from securing regular participation in international assessments, such as PISA.

With very few external benchmarks of student performance, grade inflation is a major concern in BiH, especially at transition into secondary education (ISCED 3), when teachers face pressure to provide

grades that enable students to access their study programme of choice. Societal expectations and a competitive assessment culture also pressure teachers to focus on their top performing students, who are often also among the most advantaged. Since teachers and schools receive very limited support and resources on how to assist students who are struggling, this context risks leading to decisions that reflect student background more than ability. For example, data from PISA reveal that socio-economically disadvantaged students in BiH are around four times more likely to attend a VET secondary school (ISCED 3) than a general one (OECD, 2020[10]). Such findings not only raise questions about the ways students are selected into secondary education programmes in BiH but also about need for more objective measures to signal to employers and higher education institutes that students have mastered core competences by the end of formal schooling. Addressing these challenges and leveraging the educational value of assessment will be key to raising student learning outcomes and developing human capital.



Policy Issue 2.1. Strengthening the educational value of student assessment.

International and state level actors in BiH, as well as competent education authorities have been working to implement education reforms with the goal of equipping students with the core competences needed for success in further studies, work and life. While many BiH education systems are very experienced with summative assessments that measure knowledge, there is a need for more balanced assessment frameworks that advance a student-centred and competence-based learning agenda. This includes much more support for teachers on how to assess learning in relation to specified outcomes and standards, and on how to integrate assessment results and feedback into the teaching and learning process. At present, teachers in BiH are generally left on their own to develop assessment criteria, receive limited professional development on formative assessment practices and have access to few, if any, resources to help strengthen their overall assessment literacy. BiH will need to foster a new assessment culture from the bottom-up and develop resources, training and professional networks that can help teachers appropriate more effective assessment practices. Involving parents and the wider society in these changes will also be crucial: without their understanding of why and how changes to assessment practices can benefit their children, there is likely to be resistance to reforms.

- ***Recommendation 2.1.1. Take steps to shift the culture of learning and assessment.*** Many of the administrative units covered by this review already have elements within their student assessment frameworks that can support stronger links between assessment and learning (e.g. start-of-year diagnostic tests). However, with few exceptions, there are no resources or training opportunities to help use assessments formatively and changes to assessment policies

often face resistance from teacher unions, parents and broader society. To enhance the learning value of student assessment in BiH, competent education authorities should adjust their rulebooks to emphasise a more balanced set of assessment practices. The rulebooks should provide definitions of key assessment techniques and topics (reliability, validity, formative assessment, etc.) to help strengthen teachers' assessment literacy and set a clear expectation that teachers evaluate student achievement against defined learning standards. It will be important to communicate the value of these changes to stakeholders. Such efforts can build support for a new culture of assessment that can help raise student learning outcomes.

- ***Recommendation 2.1.2. Collaborate with teachers and other actors to create resources that strengthen the educational value of classroom assessments.*** Finalising the development of learning standards that align with the Common Core Curriculum Based on Learning Outcomes is a top priority for APOSO. While having learning standards for all grade levels and key subjects can help focus attention on essential basic competences, teachers in BiH will need support on how to use these standards in their classroom practices if they are to serve to improve assessment and learning. Competent education authorities should take decisions about what specific supports and resources would be most effective in their education system and could for example, require teachers to record descriptive feedback and justification for some of their marks vis-à-vis the learning standards. However, there are also opportunities for APOSO to work with relevant partners to prepare core materials, such as examples of marked student work, assessment tasks and diagnostic assessment tools, which could immediately help teachers and students appropriate the standards. These types of resources can be a powerful way to improve the quality of teacher assessment practices and help students advance in their mastery of core competences.
- ***Recommendation 2.1.3. Provide teachers with training and support to develop their assessment literacy.*** Building teachers' assessment literacy by adapting rulebooks and providing resource materials are effective ways to help strengthen the educational value of student assessments. However, student assessment topics are not systematically covered in more formal teacher training and education opportunities in BiH. In fact, RS was the only administrative unit covered by this review where teachers reported participating in specific training modules on how to assess students; although some of this training was theoretical and based on textbooks, rather than practical experience and tools that teachers could apply directly to their assessment practice. This suggests a clear need for actors in BiH to promote a better understanding of student assessment through initial teacher education programmes, practicum experiences and professional development opportunities.

Policy Issue 2.2. Prioritising the development and implementation of external examinations.

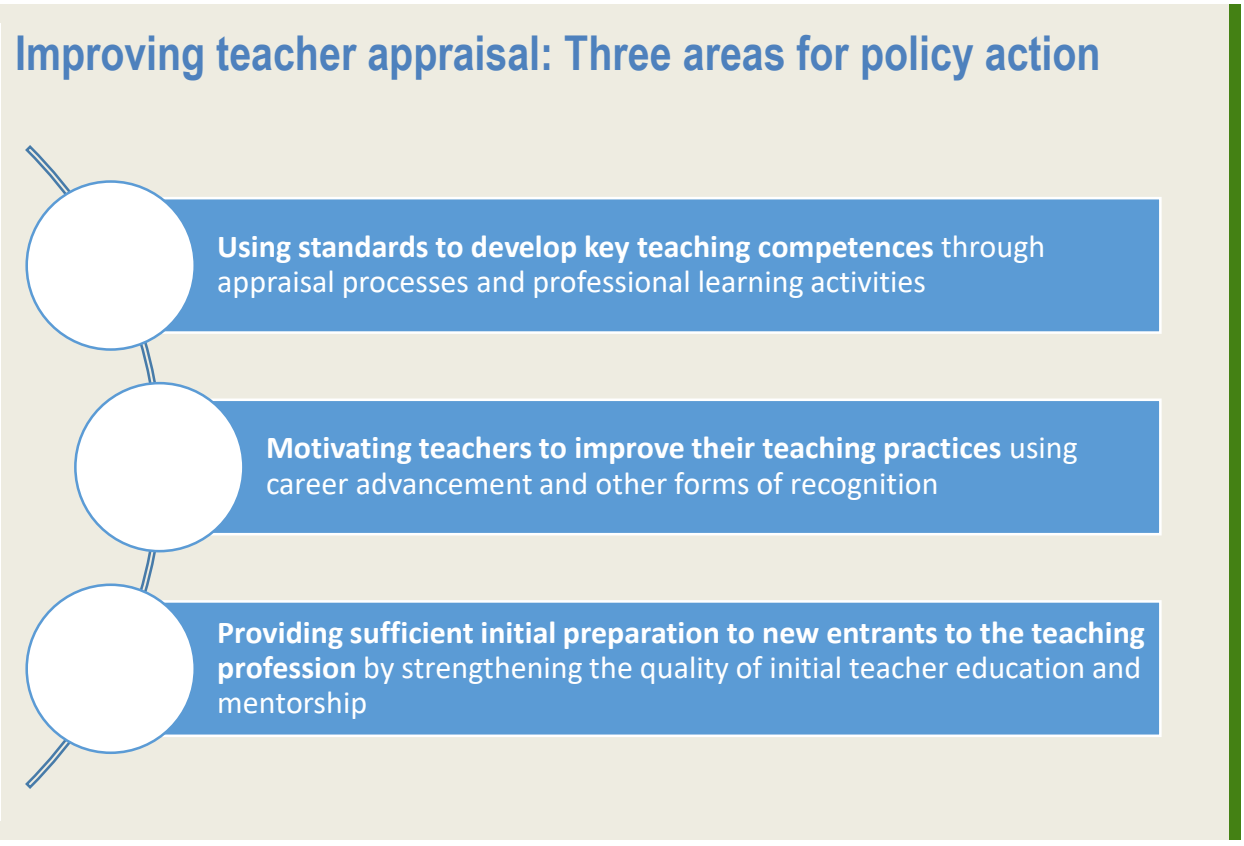
At present, there are no standardised state-level examinations in BiH and only one canton (Tuzla) has a standardised external exam at the end of secondary education (ISCED 3). While standardised examinations have been implemented in RS entity and Sarajevo canton at the end of basic schooling (ISCED 2), many administrative units are unable to develop and implement such instruments on their own because they lack the required financial resources and technical capacity. The absence of reliable measures of achievement can have negative implications for student learning: the fact that more than half of students across BiH do not achieve baseline proficiency on the PISA reading test by age 15 suggests that students are moving through the country's school systems without a clear understanding of whether they have mastered foundational competences, such as literacy or mathematics (OECD, 2019[3]). This makes reform to examinations in BiH a strong lever for focusing the country's education systems on the need for all students to develop key competences, regardless of the specific curricula they follow, what secondary track they complete or where they attended school.

- ***Recommendation 2.2.1. Develop an optional external examination of core competences.*** Only one competent education authority in BiH provides students with a chance to validate their knowledge, skills and competences through an external examination (Matura) at the end of secondary school (ISCED 3). In a country where grade inflation is a widely recognised problem, this creates a range of challenges related to the rigour and reliability of secondary school diplomas, as well as to the fairness and efficiency in how decisions about students' future are made. To address these challenges, competent education authorities and APOSO should work together, with support from the donor community, to design an external examination of core competences at the end of secondary education. This new, BiH Matura should be optional for competent education authorities (at least in the beginning) and could be limited to an assessment of students' core competences (e.g. literacy, numeracy and science). The results from this exam should be considered as part of a wider range of graduation requirements set by competent education authorities, which would help raise the value of secondary qualifications by certifying students' mastery of core competences upon graduation.
- ***Recommendation 2.2.2. Build the technical capacity to conduct and use standardised assessments.*** Once the concept and technical specifications for the new BiH Matura have been established, BiH will need to build the administrative systems to implement the exam. This infrastructure is currently lacking since the country has limited familiarity with standardised testing. Specifically, this effort should include identifying the right actors to carry out tasks such as checking the quality of test items or producing test booklets. BiH may also need to develop its testing software and information and communications technology (ICT) infrastructure to administer and mark the exam via computer, which could build public trust in the integrity of the exam by minimising the use of items that require human marking. More broadly, APOSO should work with competent education authorities to promote a better understanding of the potential benefits and risks of standardised assessments and explain their role within a comprehensive student assessment framework. Collaboration in this area within BiH and among international peers could help leverage assessment data to drive improvements in system performance, teaching practices and student learning.

Teacher appraisal supports teaching and learning by providing teachers with feedback on their performance and competences. Well-designed appraisals support teachers' professional development and hold them to account for their practice, in turn helping to raise student achievement.

In Bosnia and Herzegovina, competent education authorities are beginning to promote the more student-centred teaching and learning approaches that are becoming increasingly common across OECD and EU countries. However, teaching practices have been slow to change, largely due to a lack of supports and incentive structures that would encourage the adoption of new approaches to help all students develop core competences. Resource and capacity limitations make these efforts even more challenging in BiH. For example, the bodies responsible for organising or delivering training to teachers – typically a pedagogical institute or equivalent – often lack sufficient staff and funding. Competent education authorities therefore need to be both efficient and systematic in supporting teachers to develop modern approaches to pedagogy. Professional teacher standards can serve as a foundation for building the supports and incentives that encourage desired teaching practices. For example, they can serve as a reference for providing more relevant initial teacher education programmes and continuous professional development opportunities. Competent education authorities can also leverage the potential of digital technology and in-school learning activities to help as many teachers as possible develop their practices. Furthermore, new

formative and summative teacher appraisal processes, if well designed, can help teachers focus on developing their practices and reward them for their efforts.



Modernising teaching practices is a key challenge for BiH. Positively, all competent education authorities in the country helped to develop *Occupational standards for teachers in general education* (hereafter the occupational teacher standards) in 2016-17 to set out expectations for what teachers should know and be able to do in their role. However, the majority of education systems in this review are not using the occupational standards, and in jurisdictions where local standards have been developed, they are not yet being implemented. To improve teaching and learning, competent education authorities should adopt teacher standards that encourage teachers to use student-centred approaches that can help reduce disparities in learning outcomes and raise overall performance. They should use these standards as the basis for appraisal processes that support teachers' development and to inform the design of professional learning activities and resource materials that will help to steer innovation in teaching practices.

- ***Recommendation 3.1.1. Introduce standards-based appraisals to help teachers develop their practices.*** Competent education authorities should adopt the 2016-17 occupational teacher standards (with or without modifications) or develop their own standards. Many OECD countries use such standards to provide a reference for teachers to reflect on their practice, identify professional development goals and serve as criteria for regular performance appraisals. To develop these standards, competent education authorities should engage practicing teachers and post standards on a new central platform once they are finalised to encourage peer learning across the country. The teacher standards should serve as criteria for new teacher self-evaluations and regular appraisals. In the medium to long term, education authorities should revise their standards to describe the competences teachers should develop to advance to higher levels in their career.

Having differentiated standards will provide a stronger lever for improving teaching quality, especially if used as criteria in new appraisal for promotion procedures (see below).

- ***Recommendation 3.1.2. Harness digital technology and promote collaboration between teachers to translate standards into practice.*** To overcome a lack of resources, competent education authorities should make the delivery of continuous professional development to improve teachers' practices more systematic, efficient and coherent. For example, interested education authorities should work together, with APOSO's support, to develop an online platform that provides teachers with relevant, standards-based learning resources. Education authorities and their pedagogical institutes or equivalents should also support teachers' collaborative, job-embedded learning, including the activities of school-based teacher groups and the work of school pedagogues. Such in-school professional learning has the potential to be less costly and more effective at developing teachers' competences than traditional training seminars. Furthermore, to support system-wide education reform, the Ministry of Civil Affairs or entity, canton and district authorities should consider providing grants to schools to conduct continuous professional development in areas that address broader education priorities.

Policy Issue 3.2. Motivating teachers to improve their teaching practices.

Positively, all competent education authorities in this review have developed career paths for teachers. However, most are not conducting merit-based promotions and often consider other factors, such as years of teaching experience. To encourage teachers' professional development more systematically, competent education authorities should establish new appraisal for promotion procedures and other initiatives to motivate and reward effective teachers.

- ***Recommendation 3.2.1. Recognise teachers' competency development and high performance.*** Competent education authorities should review and revise their teacher career structures to connect higher career levels to substantial salary increases and clearly-defined responsibilities. This will help incentivise teachers to develop competences for career advancement and ensure that qualified teachers assume more complex roles to improve teaching and learning in their school and education system. Education authorities should also consider introducing measures to recognise quality teaching – in addition to career advancement – in ways that support education system goals. For example, they could give exceptional teachers opportunities to lead improvement in key areas in their school or pursue studies at the master's degree level that address school or system priorities (e.g. inclusive education; formative assessment; ICT).
- ***Recommendation 3.2.2. Introduce objective appraisal for promotion procedures.*** To further motivate teacher development, all competent education authorities in BiH should begin conducting merit-based appraisals for promotion again. However, they should first revise their procedures to strengthen the integrity of appraisal decisions, as these have high stakes for a teacher's career. Credible appraisals for promotion would involve appraisers who are completely impartial and who make decisions based on multiple sources of evidence about a teacher's competences that are measured against consistent and transparent standards. Given resource constraints, competent education authorities should have the option to seek support from a central body to conduct these types of appraisals. For example, APOSO could promote economies of scale by supporting competent education authorities in developing a common appraisal for promotion process and common training for appraisers. Education systems in BiH will also need to develop practical guidelines and other resources to support implementation of the appraisal process. These materials will be key not only to ensuring consistent judgements about teachers' performance but also in helping teachers understand how to demonstrate that they are ready for a promotion.

Policy Issue 3.3. Providing sufficient initial preparation to new entrants to the teaching profession.

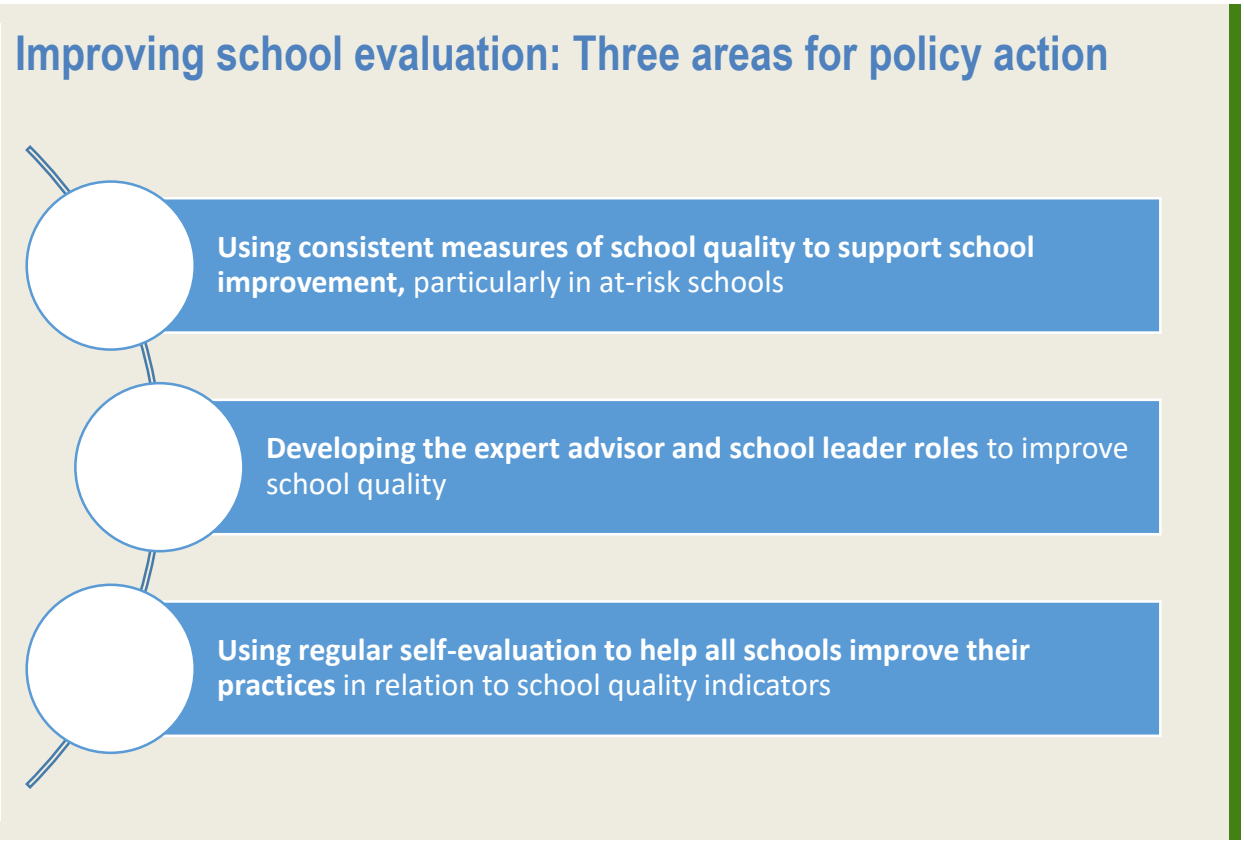
Positive features of teacher preparation in BiH include the existence of accreditation procedures for tertiary institutions as well as a compulsory internship for all newly employed graduates of initial teacher education (ITE) programmes. However, ITE programmes in BiH generally cover less content on pedagogy, psychology, didactics and methodology than is common in EU countries (Branković et al., 2016[11]). The quality of ITE programmes also varies across institutions, and there are particular concerns about private providers. Furthermore, all new teachers are not assured the same level of mentorship support during their internship, primarily because mentors lack clear guidance for their role. To better prepare new entrants to the teaching profession, BiH should make quality assurance measures for ITE programmes more rigorous and strengthen the mentorship of interns. Competent education authorities should also make better use of teacher supply and demand data to help direct resources for teacher preparation more efficiently.

- ***Recommendation 3.3.1. Ensure that all future teachers are prepared for the demands of today's classrooms.*** Competent education authorities should work together with state-level bodies and tertiary institutions to make the criteria for ITE programme accreditation more specific to initial teacher preparation. Revised criteria should, for example, define what teachers should know and be able to do by graduation, according to the occupational teacher standards. BiH should also introduce measures at the state and/or canton, entity and district level to ensure that programmes meet these criteria. Such measures could include new mandatory procedures for programme accreditation and new prerequisites for entry to the teaching profession that relate to initial teacher preparation. To ensure sufficient mentorship of new teachers, education authorities should clearly define the responsibilities of mentors and provide them with guidelines, training and other supports. Education authorities should also make sure that VET teachers who enter the profession as a second career receive sufficient preparation in student-centred teaching approaches since these individuals will likely need to address the skills and knowledge gaps of their students in addition to preparing them for a particular vocational field.
- ***Recommendation 3.3.2. Use data to adjust entry requirements for initial teacher education and ensure an appropriate supply of teachers.*** Unlike the majority of European countries, competent education authorities in BiH do not conduct systematic forward planning to inform policies related to the supply of new teachers (European Commission/EACEA/Eurydice, 2018[12]). Developing a forecasting model – at the state or administrative unit level – would help to predict the demand for teachers in each of the country's education systems. Competent education authorities should use this model to develop or adjust policies to help ensure an appropriate supply of motivated and competent teachers, such as admission quotas or acceptance thresholds for ITE programmes.

School evaluation, if well designed, supports teaching and learning by helping schools to improve their practice and holding them accountable for the quality of the education that they provide to students.

In recent years, several competent education authorities in BiH have moved away from an administrative, compliance-oriented approach to school quality assurance towards more evaluation-based procedures focused on developing instructional practices. In OECD countries, such evaluations also generate information that can be used to inform school improvement policies and provide a system-wide perspective of school quality. However, most of the education authorities in this review conduct "snapshot" reviews of schools in lieu of external school evaluations that would yield this type of data. Specifically, the reviews are not based on consistent standards of school quality, which makes it difficult for authorities to form

reliable judgements about school performance and to determine where to direct school improvement supports. Given the considerable resource and capacity constraints facing many competent education authorities, education officials will need to use resources pragmatically and prioritise schools that are most in need of support to assist student learning. Specifically, all competent education authorities should develop consistent school quality indicators to identify and target supports to at-risk schools. This in turn requires authorities to build the capacity of pedagogical institutes or their equivalents to provide hands-on support to schools. Furthermore, authorities should encourage schools to conduct self-evaluations to drive their own development. Such efforts can help improve teaching and learning environments in BiH to raise outcomes for students.



In BiH, Republika Srpska has started to evaluate schools against a set of school quality standards. However, despite efforts in the past, most authorities do not use consistent standards to monitor or evaluate school quality. Resource constraints also preclude regular, cyclical school visits. Such constraints will make it difficult for most authorities to introduce systematic external school evaluations in the short- to medium-term. To leverage available resources to raise student outcomes, competent education authorities should develop efficient school monitoring activities that focus on at-risk schools.

- ***Recommendation 4.1.1. Develop indicators of school quality.*** Competent education authorities should work together, with APOSO's support, to develop five to ten school indicators to identify schools that do not meet a minimum baseline of quality. They should engage government decision-makers and stakeholders in the development process to build a shared understanding of how the indicators could benefit BiH. The indicators should address shared concerns, including student progress and learning outcomes (e.g. rates of student absenteeism, advancement and/or graduation), school processes (e.g. teaching methods, guidance and support for students, compliance with regulations) and contextual features that impact school performance (e.g. geographic location, number of shifts or use of multi-grade classrooms, socio-economic situation,

etc.). Education authorities should also develop plans to collect indicator data that minimise onerous reporting tasks for schools.

- ***Recommendation 4.1.2. Use data from the school quality indicators to identify and support at-risk schools.*** Competent education authorities should develop a methodology to identify at-risk schools using the school quality indicators and direct more resources and targeted support towards these schools. Supports should include intensive, hands-on coaching from pedagogical institutes or their equivalent in competent education authorities and a formal networking programme that pairs at-risk schools with schools that are doing well. Education authorities should also consider publishing summary reports of how well schools are doing according to the indicators rather than individual school results. This will avoid putting undue pressure on school staff and reinforce the school improvement focus of the school quality indicators.
- ***Recommendation 4.1.3. In the long term, consider introducing external school evaluations in all administrative units.*** To have a greater impact on school improvement, competent education authorities should consider developing BiH- or authority-level external school evaluations that are more comprehensive than baseline monitoring against school quality indicators. By providing more information on the strengths and weaknesses of school practices and recommendations on how to improve, such evaluations can be a credible way to support both school improvement and accountability. For example, evaluators should be completely independent to ensure integrity of the evaluation process. Other elements could include differentiated evaluation cycles in which low-performing schools are inspected more frequently, and the public reporting of individual school results. These efforts could promote greater transparency and evidence about BiH school systems.

Policy Issue 4.2. Developing the expert advisor and school leader roles.

The administrative units in this review will require strong system and school leadership to improve school quality. Pedagogical institutes and their equivalents are well-positioned to provide support to schools. However, they are understaffed and have very broad mandates. Moreover, expert advisors' who work in pedagogical institutes have school monitoring responsibilities that sometimes conflict with their support role. At the school level, it is positive that some competent education authorities in this review plan to professionalise the school leadership role. Nevertheless, all have yet to develop key elements of professionalisation, such as school leadership standards, initial training requirements and principal appraisal processes. Furthermore, principal appointments remain vulnerable to politicisation. Competent education authorities will need to address these issues in order to develop the expert advisor and school principal roles as agents for change in BiH schools.

- ***Recommendation 4.2.1. Strengthen the school support capacity of expert advisors.*** Education authorities should create dedicated school improvement positions in pedagogical institutes or their equivalent for expert advisors who will provide support to at-risk schools and help schools with self-evaluations. To ensure that expert advisors can provide sufficient support to schools, education authorities will need to address capacity constraints in pedagogical institutes and their equivalent as a matter of priority. Such measures could include providing relevant training to expert advisors, increasing staff in pedagogical institutes or partnering with non-governmental organisations (NGO) to support school improvement.
- ***Recommendation 4.2.2. Transform the school principal role to strengthen instructional leadership.*** Competent education authorities will also need to introduce measures to help ensure that the most qualified school principal candidates are selected for the position. This could mean introducing new school leader certification requirements, like mandatory training, and further de-politicising the selection process by, for instance, increasing selectors' impartiality. Principals should also have opportunities to build their instructional leadership capacity through collaborative learning activities, such as mentorship and regular appraisal processes that lead to constructive

feedback. Authorities at the state or entity, canton and district level could work with an NGO to establish a school leadership body or bodies to develop these types of measures.

Policy Issue 4.3. Using regular self-evaluation to help all schools improve their practices.

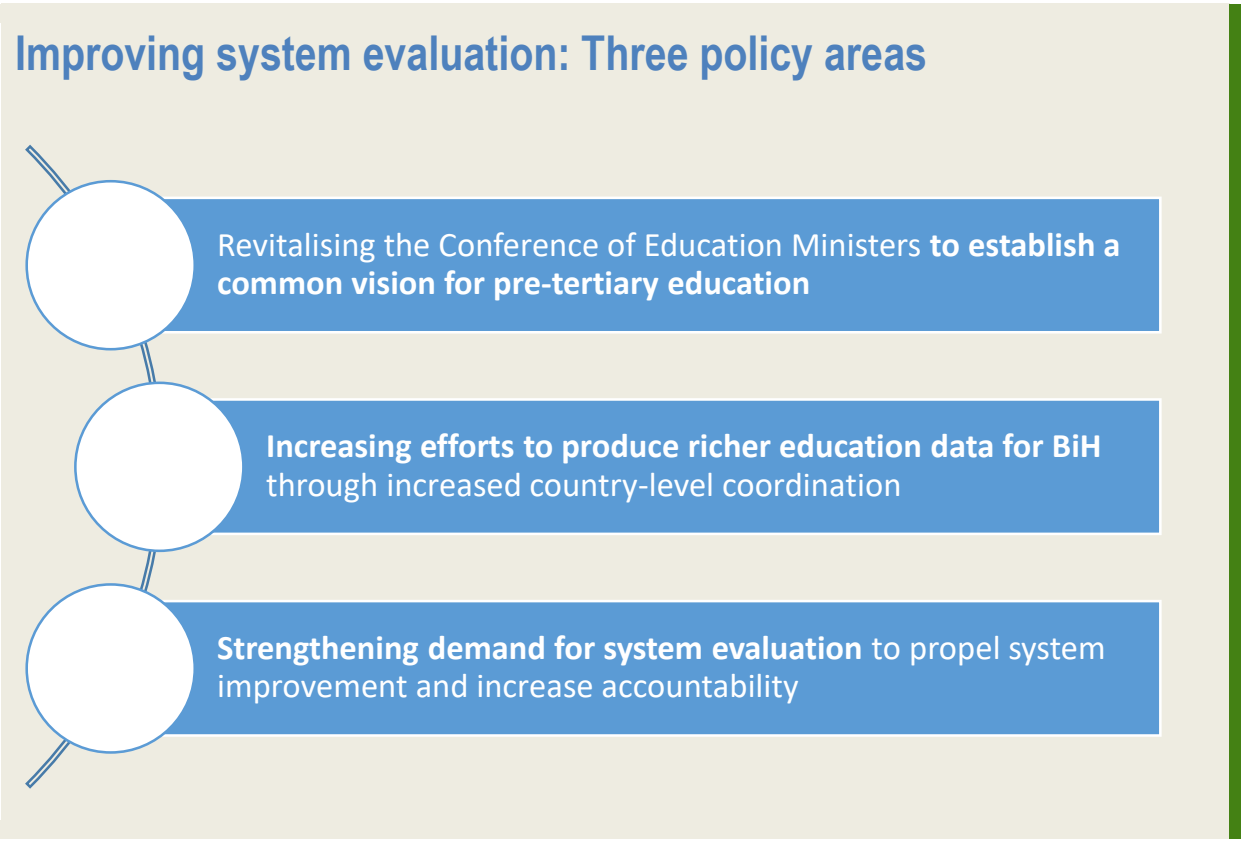
Republika Srpska and West Herzegovina Canton now require all schools to conduct self-evaluations on an annual basis for development planning purposes. However, schools in other jurisdictions covered in this review do not conduct self-evaluations. All competent education authorities should introduce self-evaluation procedures to foster a culture of continuous improvement in instructional practices. This will be particularly important in BiH because resource constraints may preclude the introduction of regular external school evaluations for some time.

- ***Recommendation 4.3.1. Encourage schools to conduct regular self-evaluations using the indicators of school quality*.** In the jurisdictions where school self-evaluation is not mandatory, competent education authorities should consider using the school quality indicators to help schools evaluate their own practices. These indicators would signal the key priorities and outcomes that schools should be working towards. Education authorities could deploy practices used in OECD and EU countries to ensure that schools find the self-evaluations useful for their own development rather than simply to fulfil external monitoring requirements. Such practices include helping schools to use self-evaluation results to inform their regular school development plans and giving schools the flexibility to evaluate themselves against additional indicators that are most relevant to their context.
- ***Recommendation 4.3.2. Provide guidance and resources to help schools lead their own improvement*.** Competent education authorities will need to provide guidance and resources, including manuals, training and expert support from pedagogical institutes or their equivalent, to help schools conduct self-evaluations. Education authorities should also develop resources to help schools act on their self-evaluation results. For instance, authorities could work together, with APOSO's support, to expand a new online learning platform for teachers (Chapter 3) to provide research and resources on effective school practices. Given that many schools in BiH lack resources, authorities might also consider introducing a competitive school improvement grant programme in the medium- to long-term whereby schools submit proposals for funding to support initiatives included in their school development plans. To support equity, authorities could prioritise proposals from schools that are identified as at-risk through the school quality indicator exercise, or that face difficult circumstances (for instance, being located in a poorer socio-economic area).

System evaluation supports teaching and learning by generating information on how an education system is performing, and using this information to improve policy and hold policymakers to account for progress against established policy goals.

There are many examples of individual policies within BiH that aim to improve the quality of education, such as the school quality standards in Republika Srpska or the performance-based appraisals for teacher promotion in Central Bosnia Canton. However, all competent education authorities face system evaluation challenges and limited co-operation at the state level reduces their ability to collectively set meaningful goals and use evidence for accountability and improvement purposes. In particular, BiH does not yet have a state-level strategy that sets out priorities for school education across the country as a whole. Moreover, previous attempts at state-level initiatives, from implementing the CCC and occupational teacher standards to establishing a country-wide education information management system (EMIS), have not been met with the support and buy-in needed to have their desired impact on the education sector.

Competent education authorities could strengthen system evaluation through greater collaboration and co-ordination at the country level, which would enable them to pool resources and share experiences. Generating richer education data to support benchmarking within and beyond BiH, and using this data to inform a more transparent and evidence-based dialogue around addressing the country's education challenges will be an important first step. Engaging in future state-level initiatives will require a large degree of political will. Therefore the BiH Conference of Ministers of Education, which was established in 2008 with the goal of overseeing "the fundamental reform of the existing parallel education systems of BiH", should strive to set long-term goals for the sector that extend beyond individual political mandates and help establish common ground among a wide range of stakeholders about what matters most: that all students in BiH are supported to develop their core competences.



Policy Issue 5.1. Revitalising the Conference of Education Ministers to establish a common vision for pre-tertiary education.

It is positive that competent education authorities in BiH have already set some education goals either in their sector-specific strategies or within their broader development strategies, as this can help direct individual education systems in the country. At the same time, most competent education authorities that have set education goals lack the resources and data to translate these goals into concrete actions and monitor their implementation. Moreover, BiH currently lacks a state-level strategy related to primary and secondary schooling. Many OECD countries with decentralised education systems set high-level education goals because it can help foster collaboration among government partners and set minimum quality standards that are coherent across the country as a whole, as well as internationally. The BiH Conference of Education Ministers provides a platform for country-level co-operation and dialogue on education, but has lost momentum and lacks a clear programme of work. Revitalising the Conference with a mandate to chart common goals for raising the quality of education in BiH could help establish a long-term and sustainable path for improvement in the wake of COVID-19. Developing action plans and reporting on

progress towards these goals can also enable BiH to make better use of donor support for education and strengthen public trust, transparency and accountability in the sector.

- ***Recommendation 5.1.1. Establish a common, widely-approved vision and goals for pre-tertiary education in BiH.*** To set a clear direction for BiH's education systems, the Conference should establish a common, shared vision and goals for pre-tertiary education. Using the Conference in this way can help to depoliticise the education debate in BiH and bring a renewed focus on improving student outcomes. Competent education authorities in BiH face a number of common challenges that could serve as a starting point for identifying high-level goals for the sector. For example, the Conference might choose to focus education stakeholders on improving learning outcomes in core domains, raising digital literacy and supporting school to work transitions. Setting out long-term goals that reflect shared ambitions can help reinforce BiH's commitments to Sustainable Development Goal 4 (SDG4) and send a clear message that all citizens should benefit from quality school education.
- ***Recommendation 5.1.2 Formulate action plans and a country-level indicator framework to monitor progress against the common education goals.*** To date, BiH's country-level education strategies and laws have failed to translate into concrete change, partly due to a lack of concrete implementation plans with measurable objectives (World Bank, 2019[13]). To address this constraint, competent education authorities should formulate action plans and a country-level indicator framework to monitor progress against the common education goals. A growing number of OECD countries use these elements of system evaluation to plan out the different steps needed to achieve a long-term goal, specify responsibilities and timelines, and to define metrics to monitor progress. BiH should ensure that indicators relate to good-quality and regularly-released data. This data should link to existing international reporting requirements by using EU data definitions.
- ***Recommendation 5.1.3 Strengthen reporting on education performance and policy.*** To build trust and an evidence-informed debate around education policy, competent education authorities should strengthen reporting on education performance and policy. Currently, there is no regular reporting on education system performance in BiH – yet this will be critical to build public understanding of reform. Competent education authorities should consider supporting the regular production of a State of Education report for BiH, which could provide quantitative data on the performance of different education systems in BiH, as well as qualitative information, such as snapshots of policy practices that have proved successful in different places. The Conference could also support the creation of a web platform that provides information on education policy and performance in BiH. These efforts can help promote peer-learning and collaboration among BiH education systems.

Policy Issue 5.2. Increasing efforts to produce richer education data for BiH through increased country-level co-ordination.

Policymakers require high-quality data to ensure that policy is evidence- informed, and that good governance values such as integrity, openness and fairness are embedded into the policy cycle (van Ooijen, 2019[14]). Access to more sophisticated data can also help BiH to shift the education policy focus away from inputs (e.g. expenditure on education, the number of teachers) towards outcomes (e.g. student learning and teaching quality); thus helping decision-makers to weigh the potential of different interventions. Access to more granular data can also help policymakers to track differentiated outcomes for specific demographic groups, helping to monitor and reduce system inequities. At present, education actors in BiH do not have the type of comparable and timely data they need to conduct rigorous system evaluation and guide policy. This context also makes international reporting of education data a challenge for the BiH Agency for Statistics (BHAS).

- ***Recommendation 5.2.1. Progressively improve country-level data governance.*** Promoting more alignment around internationally recognised data standards and protocols could facilitate international reporting for the BHAS while reducing the reporting burden on schools who currently report data to both their education authority and BHAS. To unlock this resource, the BHAS and BiH's competent education authorities should work together to progressively improve country-level data governance. This is a common practice in OECD countries with decentralised education systems, such as the United States, where identifying common standards (that also align with international commitments), developing operating policies, and implementing processes for managing data have helped to improve the quality of data collection, reporting and use across states (Edfacts, 2020[15]).
- ***Recommendation 5.2.2. Commit to participate in future cycles of international assessments.*** Few competent education authorities currently conduct standardised learning assessments, meaning that there is very little reliable data on learning outcomes in BiH. Limited co-operation in this area also means that data on learning outcomes cannot be compared across BiH or at the international level. Producing data on learning outcomes is an important feature of education evaluation frameworks in most OECD countries because it provides information on the final results that an education system is trying to achieve (OECD, 2009[16]). Given that learning outcomes data in BiH is scarce and producing comparable data may remain a challenge over the immediate term, BiH's competent education authorities should formally commit to the long-term participation in major surveys, such as PISA, TIMSS and PIRLS. This data will allow competent education authorities to set measurable policy goals, and help to review performance over time.
- ***Recommendation 5.2.3. Build competent education authorities' capacity to compile high-quality data.*** To ensure that data governance and participation in international assessments are successful, BiH will need to invest in the capacity of competent education authorities to support and benefit from these initiatives. This can be done either through peer learning but also by ensuring that all entities and cantons have the staff capacity and infrastructures needed to manage an EMIS system. Over time, establishing an information system that compiles and stores education data at the country level - that education systems could customise for their own needs while still reporting key common data - would make it even easier to compile comparable and timely information for the indicator framework and to measure sector progress. At present, BiH is one of the few countries in Europe that does not have a functioning EMIS at the state-level.

Policy Issue 5.3. Strengthening demand for system evaluation to propel system improvement and increase accountability.

Defining common goals for education policy and generating data that can help policymakers to understand how their education systems are performing is an important first step in strengthening system evaluation in BiH. However, the country will also need to leverage available data – as well as data that could become available in the future – to build demand for using evidence to inform policy and increase accountability and transparency. Such efforts will be critical to ensure that all other efforts to improve system evaluation are sustained. While BiH's participation in international student assessments (i.e. PISA in 2018 and TIMSS in 2019) has generated important data on learning outcomes, there remains limited domestic analysis and use of this data. This represents a missed opportunity for mutual learning. BiH also has a sizeable diaspora and development partners that could be mobilised to produce more outward-looking analysis and debate on how the country's education systems are performing. In turn, these efforts could help build a stronger culture of education research and evaluation in BiH.

- ***Recommendation 5.3.1. Create an international scholarship programme for research in education.*** There have been no concerted efforts at the BiH-level to co-ordinate, consolidate and commission research in education, and most competent education authorities do not have the resources to do this independently. To promote the production of high-quality research on its

education systems, BiH could create an international scholarship programme for research in education. The programme could benefit from expertise and funding from international donors and be administered by APOSO as an independent, state-level body with an informed perspective on the country's most critical policy questions. Importantly, findings from the programme should be made openly available to the public and competent education authorities could comment on the findings and how they can help inform education reforms in their system.

- ***Recommendation 5.3.2. Establish citizens' assemblies to provide input for planning the implementation of important reforms***. Education remains a politically sensitive topic in BiH, which can create roadblocks for reform. To ensure that citizens have a say in the policies that will affect them over the long term, BiH should establish citizens' assemblies to provide input in the planning and implementation of important reforms. This initiative could also help to strengthen trust in government partners. To ensure that participants are representative, they should be selected through a carefully designed sample and their work should be published through a regular progress report, in order to maximise transparency in the initiative.

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Part I Evaluation and assessment review of Bosnia and Herzegovina

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

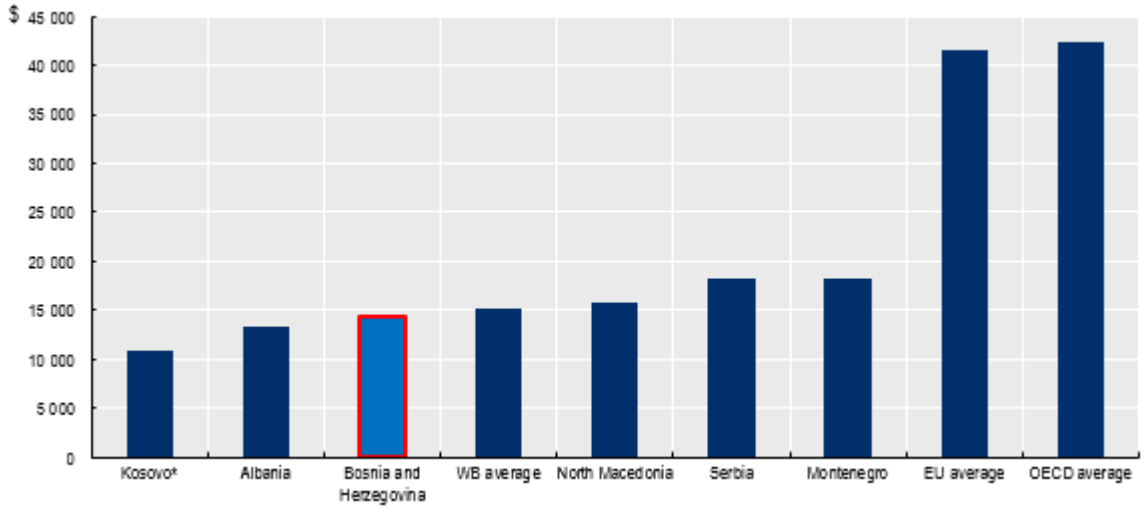
creates significant challenges for setting strategic objectives, policy coherence, and ensuring the effective delivery of public services. This review will cover seven administrative units: the state (BiH); the two entities of RS and FBiH; Brčko District, and a sample of three cantons (Sarajevo Canton, 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 Kosovo[1] (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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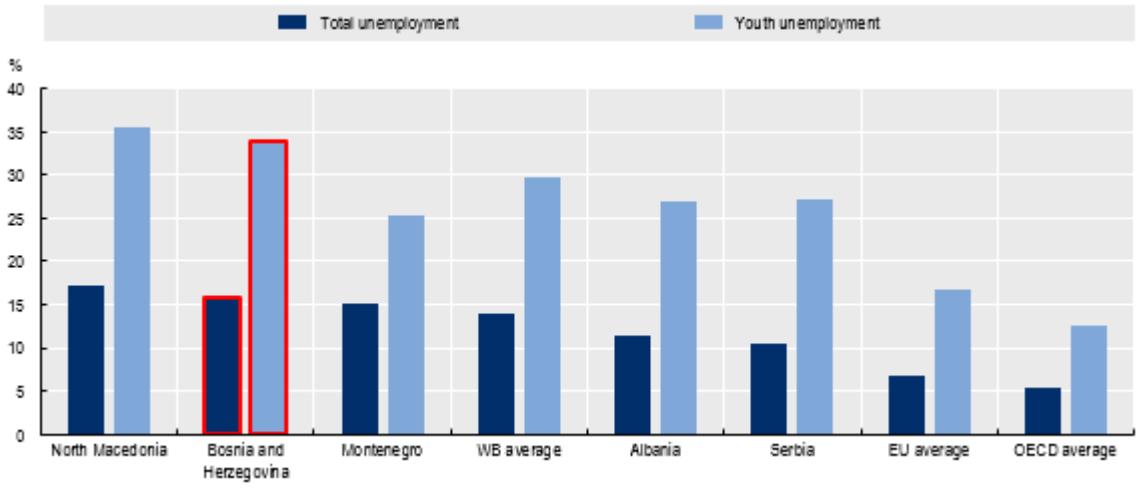
High unemployment rates, especially among youth, contribute to substantial emigration

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).

StatLink https://stat.link/1ac3ip

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 index[2] 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.

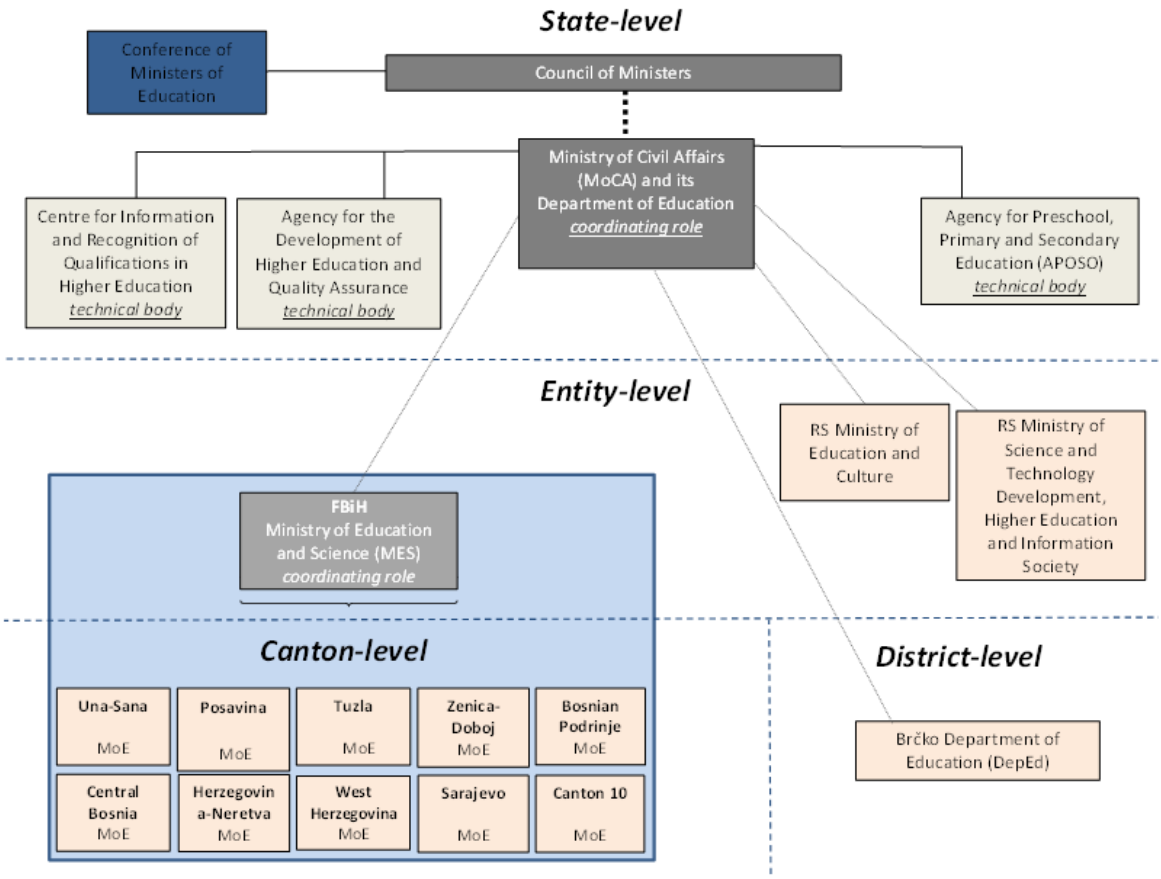
Key features of education systems in Bosnia and Herzegovina

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*

StatLink https://stat.link/csetgl

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; - *The Platform for Development of Early Childhood Education and Care in BiH* (2017-2022) covers pre-school education - *Improvement of the Quality and Relevance of Vocational Education and Training in Bosnia and Herzegovina - in light of the Riga Conclusions* - (2021- 2030)			
RS entity	*Strategy of Education Development for Pre-university Education*	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, APOSO 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 APOSO 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, APOSO 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

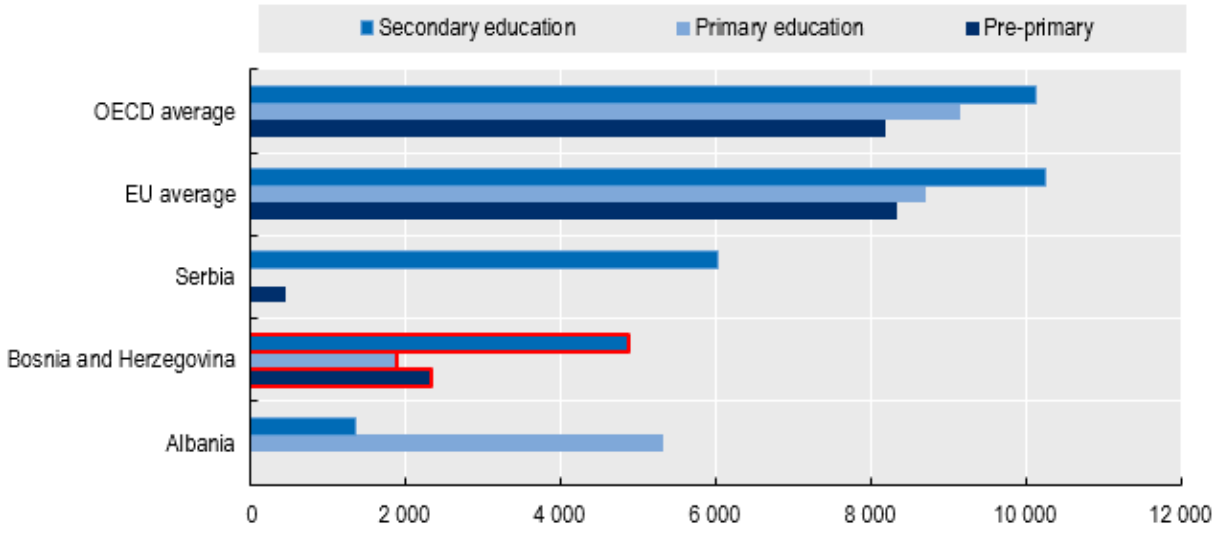
BiH's governance structure, coupled with a limited interest in co-operation and co-ordination (e.g. the lack of state-level education strategy) between administrative units and restricted resources and capacity, poses significant challenges for policy co-ordination and resource efficiency. This situation 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).

StatLink https://stat.link/9r0pxg

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	Bacherlor'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					
	8	III	First cycle of primary education				
	7	II					
	6	I					
02	5 and a half / 6 and a half		Pre-primary education	Kindergarten **(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]).

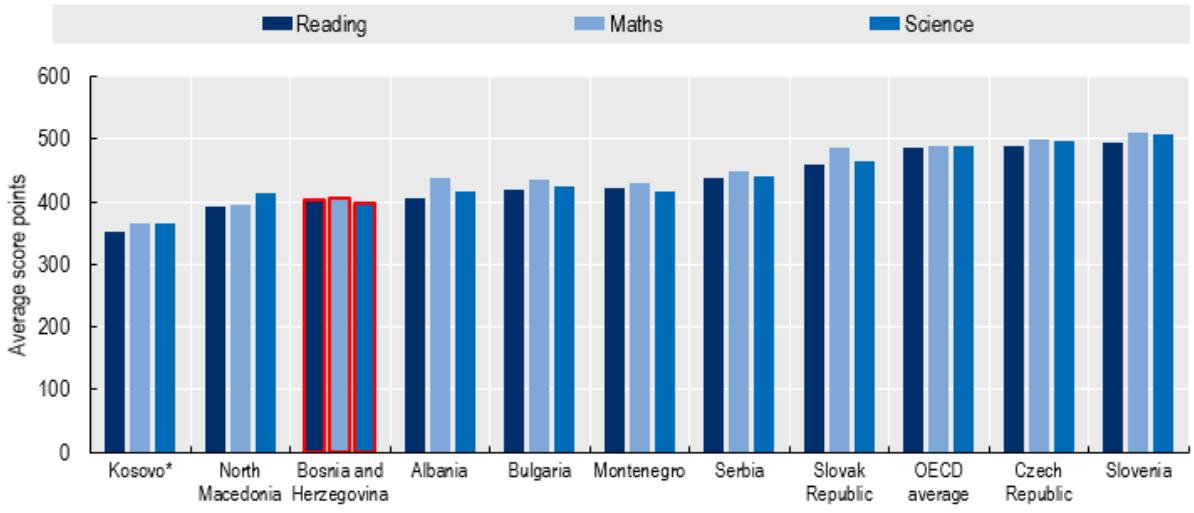
Learning environment and outcomes

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.

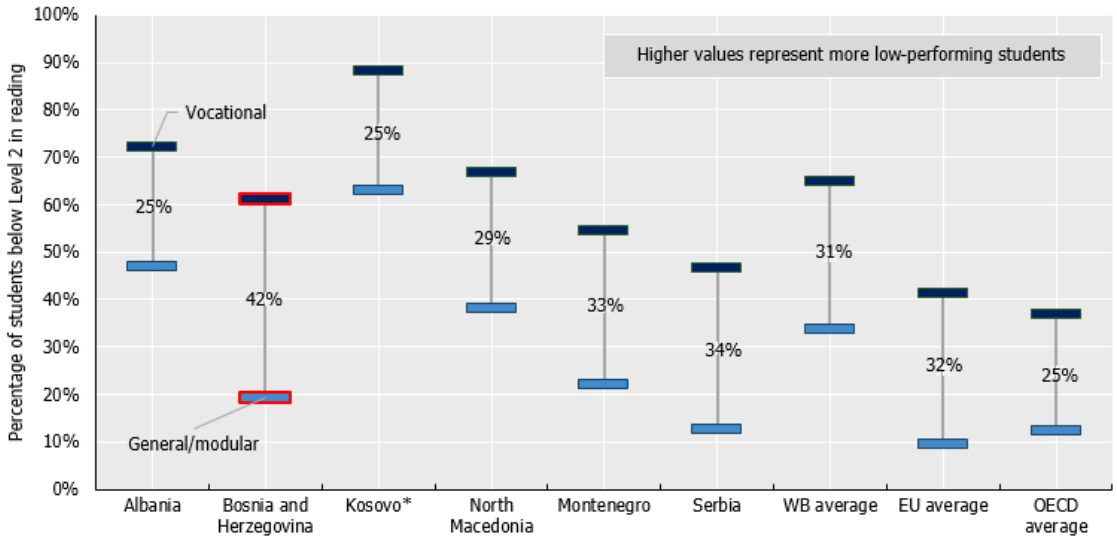
StatLink https://stat.link/bgyz8j

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/4tabl2

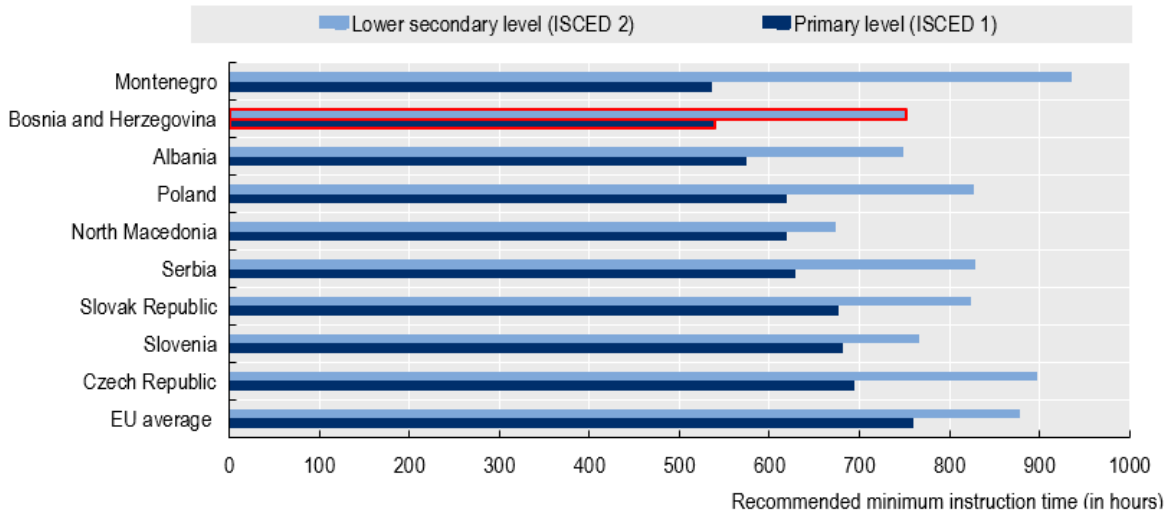
Truancy and the disciplinary climate in schools appear to undermine learning

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.

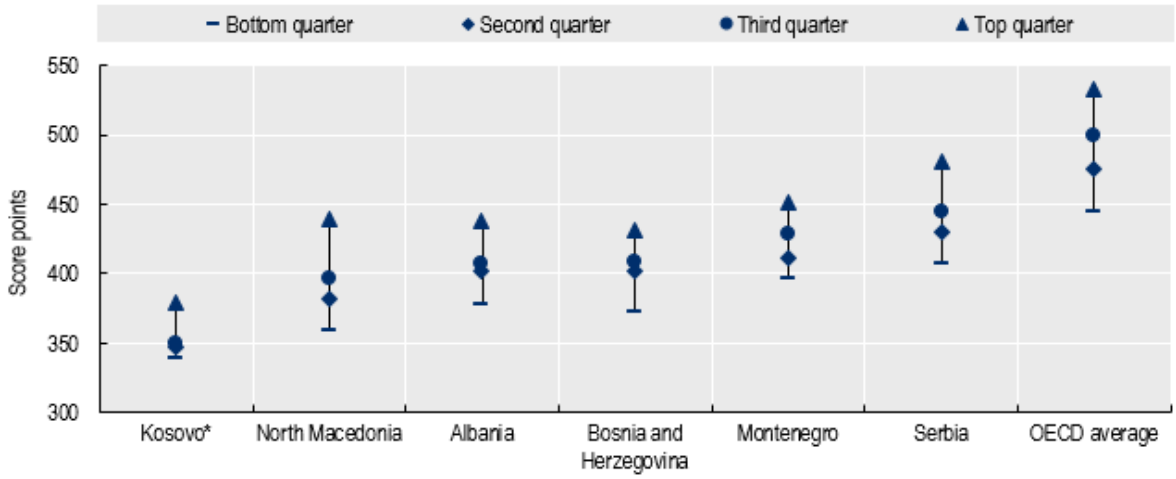
StatLink https://stat.link/9r1hbv

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, advantaged[3] 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 suggest 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 ethic 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[7]), 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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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.

2 Supporting student learning through assessment

Education systems in Bosnia and Herzegovina's (BiH) have taken steps to introduce new competence-based curricula. However, assessment policies and practices in many of the competent education authorities covered by this review do not yet reflect the types of instructional practices that support student learning. For example, teachers often lack resources and support to implement formative assessments in their classrooms and the use of standardised assessment in the country is very limited. This chapter sets out recommendations for how education authorities can address these challenges and use student assessment as a tool for helping all young people to develop core competences.

Introduction

Student assessment helps focus attention towards what matters most in education: what learners know, what they are capable of doing and how they can improve. Through assessment, educators can identify specific learning needs before they develop into more serious obstacles, and help students make informed decisions about the next step in their education. Quality assessment policies and practices are especially important in light of the school disruption caused by the COVID-19 pandemic, as they can help teachers and education systems as a whole address learning losses and other concerns. While Bosnia and Herzegovina's (BiH) education systems have taken steps to introduce new competence-based curricula, assessment policies and practices in many of the competent education authorities do not yet reflect the types of instructional practices that support student learning. This is partly related to the lack of resources and supports for teachers to develop their classroom assessment literacy, as well as the very limited use of standardised assessment in the country and, with this, the absence of clear expectations and reliable measures of achievement. Addressing these challenges will be crucial not only to support curricula implementation but also to improve education outcomes and skills in the country by focusing actors on the types of inclusive, student-centred pedagogies that help students learn.

Student assessment in Bosnia and Herzegovina

Along with the roll out of the Common Core Curriculum Based on Learning Outcomes (CCC) and an overall emphasis on competence-based education, most of the competent education authorities covered by this review have introduced some changes to student assessment policies, such as the use of qualitative descriptors to accompany quantitative scores or diagnostic "check-in" tests to establish an initial benchmark of student performance. However, these policy reforms have not led to real changes in classroom practices, in part because they have not been accompanied by tools and support for teachers. As a result, teachers' classroom assessments remain off-balance, with a strong emphasis on simple, summative forms of assessment and a lack of attention to formative methods or the assessment of more complex, higher-order competences (Box 2.1). Moreover, while Republika Srpska (RS) and some cantons have established external measures of student learning, the majority face capacity and resource constraints that prevent them from developing and using standardised assessments to improve the reliability of teachers' marking and set clear expectations for students. These factors, coupled with limited co-operation between administrative units have prevented competent education authorities from developing standardised assessment practices at the state level (Table 2.1). Lack of political co-operation has also prevented BiH from securing regular participation in international assessments. Addressing these challenges and leveraging the educational value of assessment will be key to raising student learning outcomes across the country.

Box 2.1. Purposes of assessment

Summative assessment – assessment of learning summarises learning that has taken place in order to record, mark or certify achievements.

Formative assessment – assessment for learning identifies aspects of learning as they are still developing in order to shape instruction and improve subsequent learning. Formative assessment frequently takes place in the absence of marking. For example, a teacher might ask students questions at the end of the lesson to collect information on how far students have understood the content and use the information to plan future teaching.

Source: (OECD, 2013[1]), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, https://dx.doi.org/10.1787/9789264190658-en

Table 2.1. Overview of student assessment in the administrative units of Bosnia and Herzegovina

Type of assessment	Reference document	Body responsible	Process	Frequency	Use
Classroom assessment	A) Common core based on learning outcomes (state-level) B) Individual curricula developed by competent education authorities (entity and canton level)	Teachers	Specific processes vary by competent education authority but generally consist of: - descriptive marks for early years of primary - numerical marks (on a scale of 1 to 5) for older cohorts - marks for student behaviour.	Typically occurs throughout the semester, with a final mark at the end of each term; depends on competent education authority	- evaluate student achievement (mostly summative) - partly used for selection into secondary and tertiary* education.
Examinations	Individual curricula developed by competent education authorities (entity and canton level)	Competent education authorities	- Tuzla and Sarajevo cantons have external examinations. - RS is piloting an external exam in Grade 9	Varies; typically occur at the end of primary or secondary school	- certification of completion of primary or secondary school. - sometimes used as one of the criteria for selection into higher levels of education
System-wide external assessments	No state-level system-wide external assessments exist at the BiH state level				
	Expert instruction defines subject areas and assessment procedure	Republican Pedagogical Institute of RS	RS entity has an external assessment of primary students	Annual	Assessments are marked by a commission of subject teachers; results are reported at the school level, not for individual students

Type of assessment	Reference document	Body responsible	Process	Frequency	Use
International assessment	PISA framework	OECD	OECD Programme for International Student Assessment (PISA): mathematics, science and reading	Every three years - first and only participation in 2018**	APOSO implements assessment and develops state-level reports to inform policy
	TIMSS framework	International Association for Evaluation of Educational Achievement (IEA)	IEA Trends in International Mathematics and Science Study (TIMSS): mathematics and science	Every four years - first and only participation for Grade 8 was 2007 and for Grade 4 was 2019**	

Note: APOSO: Agency for Pre-school, Primary and Secondary Education
*Tertiary institutions in BiH often administer a university-led entrance exam to select students into their study programmes, the results of these exams are typically considered alongside a student's classroom marks.
**BiH will not participate in upcoming rounds of PISA (2022) and TIMSS (2023).
Source: (BiH, 2021[2]), *Country Background Report for the OECD Review of Evaluation and Assessment in Education: Bosnia and Herzegovina,* Unpublished.

Overall objectives and policy framework

High-performing education systems successfully align curriculum expectations, subject and performance criteria, as well as desired learning outcomes (Darling-Hammond and Wentworth, 2010[3]). Having a set of clear expected outcomes, expressed through qualifications frameworks, curricula and learning standards can help establish an education culture whereby teaching and assessment supports student learning. BiH has taken important steps to establish a competence-based curriculum framework at the state level (2018); however, the extent to which competent education authorities have integrated and aligned their local curricula and expectations for learning to this framework varies. Moreover, while it is positive that competent education authorities have rulebooks to guide student assessment policy, many rulebooks do not provide for a balanced set of assessment instruments and remain very general, making it difficult for teachers to understand how to teach and assess competences. This context creates considerable gaps between the intended curriculum and the taught curriculum across BiH, signalling a need for greater co-ordination and implementation support within and across the country's administrative units.

A framework curriculum based on learning outcomes was recently adopted at the BiH-level

After an intensive six-year consultation led by the Agency for Pre-school, Primary and Secondary Education (APOSO), and with support from international partners, administrative units in BiH collectively developed the Common Core Curriculum Based on Learning Outcomes (CCC) in 2018 and now use the document as reference to build their own curricula. The CCC represents a significant shift from a content-based curriculum towards one that focuses on developing the 21st Century competences that students need for success in work and life. The competences set out in the CCC build on the European Parliament and the Council of Europe's Recommendation on Key Competences for Lifelong Learning (updated 2018), with the addition of creativity-productivity and physical and health competences. In addition to the ten key competences, the CCC defines eight specific learning areas, for which APOSO has already started developing student achievement standards in key grades covering these areas (see Table 2.2). Other decentralised education systems in OECD countries have taken a similar approach to balancing local curricula and common learning goals. For example, in Switzerland, the Conference of Cantonal Ministers of Education sets learning goals for compulsory schooling across four fundamental subject areas in key grade levels (EDK, n.d.[4]). While BiH has not yet developed achievement standards for all subjects and grade levels, doing so is a top priority for APOSO since these materials can help education ministries and other actors design interventions to improve teaching and learning.

Table 2.2. Learning areas where BiH has developed student achievement standards

Learning area	Subject	Grade 3 (age 8-9)	Grade 6 (age 11-12)	Grade 9 (age 14-15)	End of secondary (age 18 or 19)
1. Language and Communication	Mother tongue	●	●	●	●
	Foreign language				
2. Mathematics		●	●	●	●
3. Natural Science	Physics	-	-	●	●
	Chemistry	-	-	●	●
	Biology	-	●	●	●
	Geography	-	●	●	●
	Nature, society and my environment	●	-	-	-
4. Social Science and Humanities	History	-	●	●	●
	Civic education				
5. Technics and Information Technology					
6. Art					
7. Physical and Health Education*					
8. Cross-Curricular area					

Note: APOSO has also developed standards for pre-school education, which are not addressed in this chapter. Cells marked with "– "are not covered at the particular grade level. *At the time of this review APOSO was in the process of developing achievement standards for this area.
Source: (APOSO, 2021[5]), *Standards of student achievement,* https://aposo.gov.ba/hr/standardi-ucenickih-postignuca-poj/ (accessed on 3 December 2021).

Competent education authorities develop their own curricula but the extent to which these align with the Common Core Curriculum Based on Learning Outcomes varies

Competent education authorities in BiH have full autonomy to determine school curricula in their jurisdictions, making local leadership central to improving instructional practice. There is broad consensus among stakeholders covered by this review that school curricula are outdated and overemphasise the memorisation of academic knowledge at the expense of applied learning and higher-order cognitive functions. The overall goals of the CCC are, therefore, broadly shared, and many competent education authorities and their pedagogical institutes were involved in developing the state-level CCC document. However, despite a common interest to introduce more competence-based approaches to education that focus on learning outcomes, the process of changing the culture of instructions at the local level has been slow and uneven.

A recent study of legislation across administrative units in BiH revealed that the key competences are often either omitted or included merely as a declaratory statement in official documents (OSCE, 2021[6]). When competent education authorities' curricula do mention learning outcomes, these frequently focus on memorising facts rather than demonstrating higher-level cognitive and behavioural competences (ibid). Many curricula in BiH also lack links to a clear vision for the education system and teachers have little support or incentive to adopt the more student-centred teaching and assessment practices that underpin the CCC (see Chapters 3 and 5). This disconnect between the *intended* goals of the CCC and the *implemented* curricula across BiH continues to impede improvements in the quality of teaching and learning.

Student assessment rulebooks exist at the entity, canton and district levels but rarely mention formative assessment and do not link to learning standards

Most competent education authorities in BiH have specific rulebooks that address student assessment policy. These rulebooks generally set out different ways to measure student learning, mainly in the classroom (e.g. through oral, written, practical assessments), the frequency and timing that assessments should be administered, as well as procedures for marking and reporting feedback to students and their parents. Positively, many of the rulebooks include references to key assessment principles, such as the importance of using a mix of numerical and descriptive marking, as well as conducting "initial checks" or diagnostic tests at the beginning of the school year. However, the start-of-year diagnostic tests are not applied consistently and very few administrative units specify how teachers' assessments might be standardised (e.g. through moderation practices, the use of external instruments or resources such as grading criteria or marked examples of student work) to promote more reliable and consistent judgements of student achievement. These challenges are further exacerbated by the fact that in general, assessment rulebooks do not explain how assessment practices can help reinforce curricula and standards of student achievements (OSCE, 2020[7]). As a result, it is difficult for teachers and other stakeholders (e.g. students and parents) to expand their understanding of assessment beyond grading and formal qualifications, that is, they are not aware of how a fuller range of assessment practices can support learning and the mastery of key competences.

While some of the practices set out in the rulebooks have the potential to support student learning, most do not clearly explain the concept of formative assessment. In fact, only the RS entity rulebook (developed recently to guide assessment during COVID-19) and some of the Brčko District's rulebooks explicitly refer to formative assessment as a tool for improving student learning (see Table 2.3). This differs from most EU countries and other Western Balkan systems, which have policy documents that clearly distinguish between assessment of learning (i.e. summative) and assessment for learning (i.e. formative). Many of these systems have also developed guidelines and support materials to help teachers implement formative assessments. North Macedonia, for example, created a Formative Assessment Manual in 2015 to guide professional development and encourage teachers to use formative assessment by explaining how to diagnose student achievement compared to expected learning outcomes and use this information to help differentiate and tailor instruction to individual student needs (Raleva, 2021[8]; OECD, 2019[9]). No such support materials exist in BiH currently.

Table 2.3. Features of student assessment rulebooks in select BiH administrative units

Administrative unit	Key guiding documents and legal regulations on student assessment	Formative assessment	External instruments	Initial checks	Reporting requirements
FBiH (entity)	Responsibility over student assessment is not within the competence of FBiH entity ministry; it is the responsibility of cantonal ministries				
Sarajevo Canton	Ordinance on monitoring, evaluation and assessment of primary and secondary schools (2018)			•	
	Ordinance on the administration of the external exam at end of primary (2018)		•		•
	COVID-19 Guidelines for digital development educational content and monitoring, evaluation and student assessment (2020)				
West Herzegovina Canton	Rulebook on the manner of monitoring and evaluating students in primary and secondary school (2018)			•	
Central Bosnia Canton	Rulebook on evaluation and evaluation of students in secondary school (2012)			•	•
RS (entity)	Rules on evaluation of students in primary school (2012)			•	
	Rulebook on evaluation of students in teaching and taking high school exams (2019)				•
	On monitoring, evaluation and evaluation of students during distance teaching (2020)	•			•
Brčko District	Rulebook on monitoring and evaluating secondary students (2008; amended 2010)	•		•	
	Rulebook on monitoring and evaluating and descriptive evaluation in primary school (2010)			•	•
	Rulebook on evaluation of vocational secondary students (2010)	•			

Source: Student assessment rulebooks and legislation provided in the background report and by competent education authorities from BiH to OECD review team.

Classroom assessment

Ongoing and regular identification and interpretation of evidence about student learning is a key component of effective instruction (Black and Wiliam, 2018[10]). In BiH, however, classroom assessment is often viewed by teachers, students and society as a summative validation and selection exercise, rather than an integrated part of the learning process. While competent education authorities and pedagogical institutes provide rulebooks on student assessment policy, these documents generally lack balance between formative and summative role of assessments (see Box 2.1). Moreover, teachers across the country lack adequate support and training to implement valid and reliable assessments, as well as how to use assessments formatively to give students feedback on their learning and inform their own teaching practices. These findings suggest a clear need to strengthen the educational value of classroom assessments in BiH, which could have a significant impact on improving student attitudes to learning and their outcomes.

Students in the early years of primary school receive descriptive marks, while older students generally receive numerical marks for each subject and overall performance

While there are some variations in how teachers are expected to conduct classroom assessment across BiH administrative units, policies are generally similar and aim to monitor, check and record student learning. For example, all three cantons covered by this review, as well as the RS entity, encourage the use of diagnostic tests at the beginning of the academic year to determine students' entrance level of

performance and identify areas for support. Some of the rulebooks examined in this review also set out requirements for the frequency and timeline of reporting results from classroom assessments. For example, continuous classroom assessments and final examinations (at the class or school level) in each subject are commonly used to calculate grades for the end of term and end of school year (i.e. grade point average, GPA). In line with other Western Balkan systems, including Serbia, Albania and North Macedonia, student grades in BiH are usually expressed as descriptive marks for younger students and numerical scores using a five-point scale for older groups of students (see Table 2.4) (OECD, 2019[9]; Maghnouj et al., 2020[11]; Maghnouj et al., 2020[12]).

It is positive that numerical grades for older students are associated with qualitative descriptors (e.g. insufficient to excellent), as this helps contextualise performance levels. Some education authorities go further to provide definitions for each descriptor. This is the case in Central Bosnia Canton, where the assessment rulebook defines the lowest grade "1" as "insufficient," for students who do not acquire basic knowledge and skills and do not reach a satisfactory level of achievement of standards (Official Gazette Central Bosnia Canton, 2012[13]). However, many competent education authorities, including the RS entity and Sarajevo Canton, have not provided definitions for the descriptors associated with student numerical grades, leaving teachers, students and parents to interpret the meaning of different grades, such as "good" (3) or "very good" (4). Moreover, the language typically used for descriptors in BiH is at odds with competence-based approaches to education, which situate learning on a continuum (e.g. accomplished, developing or emerging), rather than a summative judgement of achievement. A more balanced understanding of assessment is further hindered by the lack of subject- and task- specific guidance that teachers receive on how to provide feedback from assessments to help students progress.

Another feature of student assessment in BiH is that teachers across the country assess student behaviour at school. Behaviour grades are usually descriptive but their implications vary. While grades for behaviour do not affect the general success of students in the RS entity or the West Herzegovina Canton, they are included in the GPA of students in the Central Bosnia Canton. Traditionally, this practice of including behaviour as part of the GPA is a disciplinary measure (i.e. to penalise students for misbehaving in class). Most OECD countries have moved away from this exclusionary practice by separating grades for academic subjects from grades for classroom behaviour and participation (OECD, 2012[14]).

Table 2.4. Grading scales across BiH

Administrative unit	Grade	Type of marking
Cantons within FBiH	Grade 1 and first semester of Grade 2 in some cantons	Descriptive, according to learning outcomes set out in the curriculum
	Grades 2-9 (primary) and 1-4 (secondary)*	Numerical: 1 (insufficient) to 5 (excellent)
RS	Grades 1-3	Descriptive: a) very successful; b) successful; or c) participates
	Grades 4-9 (primary) and 1-4 (secondary)	Numerical: 1 (fair) to 5 (excellent)
Brčko District	Grades 1-3	Descriptive
	Grades 4-12	Numerical: 1 (insufficient) to 5 (excellent)

Note: *Pupils with "mild" or "severe" learning difficulties within FBiH cantons are assessed as: a) Outstanding; b) Good or c) Satisfactory.
Source: (BiH, 2021[2]), *Country Background Report for the OECD Review of Evaluation and Assessment in Education: Bosnia and Herzegovina,* Unpublished.

Teachers determine their own criteria for student assessment

Rulebooks on student assessment in BiH typically set out a range of techniques that teachers and schools should use to evaluate students, including oral and written tests, project-based assessments, notebook and homework checks or practical exercises. However, teachers and schools are responsible for developing specific assessment criteria to measure student achievement and not all administrative units have a clear set of learning standards to benchmark student performance or use the learning standards of

student achievements developed by APOSO. For example, the RS entity curriculum defines expected learning outcomes by subject and grade level, but Brčko District, Central Bosnia Canton and West Herzegovina Canton have no criteria for what students are expected to achieve and Sarajevo Canton is developing standards of student achievements for some subject areas (BiH, 2021[2]).

Without specific assessment criteria or marked exemplars to help determine a student's level of achievement – and in some cases the outright lack of common learning standards – many teachers in BiH must rely on their own interpretations of the curriculum and knowledge of assessment to determine student's strengths and areas for improvement. Interviews undertaken by the OECD review team revealed that the extent to which teachers of the same subject or grade levels collaborate to develop common assessment criteria within their school depends largely on the initiative of individual teachers or school leaders and is not systematic (see Chapters 3 and 4). In one school, for example, teachers said it is possible for students in one class to take a 5-question test in 15 minutes, while their peers with a different teacher for the same subject and grade level take a 15-question test within 45 minutes. As a result, student grades are not comparable within and across schools in BiH.

End-of-year grades typically determine student selection into secondary schools

Secondary education in BiH is provided by separate institutions that offer either general, technical, vocational or arts and religious study programmes (see Chapter 1). Selection into these different pathways is largely based on academic performance. While many OECD countries with differentiated secondary systems use academic results to inform placement, the process of selection in BiH stands out in several respects. In particular, it appears that education authorities rely more strongly on achievement data than on other criteria, such as student choice or location of residence. Data from PISA 2018 reveals that in BiH, 73% of secondary students (ISCED 3) attend a school where admission is contingent upon academic performance, compared to only 45% across OECD countries (OECD, 2020[15]).

The stakes for secondary placements in BiH are particularly high, because of the lack of permeability between educational tracks in BiH (i.e. it is difficult for students to move from one educational orientation to another) and the low quality of vocational options. Moreover, the academic performance data used for selection is largely from school-based assessments. While there is considerable variation across the OECD, when teachers' judgements are used as the primary source of information to determine student pathways, these judgements need to be fair and extremely reliable. In BiH, various factors signal that this is not the case: there are risks of grade inflation in classroom marks, with teachers lacking external benchmarks and under pressure from parents and students to provide grades that enable acceptance into their programme of choice. This context can lead to decisions that reflect student background more than ability. For example, data from PISA reveal that socio-economically disadvantaged students in BiH are around four times more likely to attend a VET secondary school (ISCED 3) than a general one (OECD, 2020[15]). After Serbia, this is the largest difference in the Western Balkans.

In some cases, education system in BiH use external measures to inform the allocation of students into different secondary schools (ISCED 3), which can help reduce the potential bias and inconsistences in decisions. For example, specialised schools (e.g. for arts and music) in West Herzegovina Canton administer entrance exams to select students into their programmes and in Sarajevo Canton, the ministry organises an external examination, which is one of the criteria (alongside GPA) used to select students into either vocational or general secondary schools (ISCED 3). The RS is also developing a similar pilot examination to help inform selection into secondary education (ISCED 3). However, these examples are mainly exceptions: most administrative units in the country draw on students' classroom grades to make admissions decisions.

Teachers are very experienced in using summative classroom-based assessment; however, there is a need to balance this with other assessment purposes

Teachers in BiH have a strong understanding of summative assessment, or practices that summarise learning in order to record, mark or certify achievement (OECD, 2013[1]). This aligns with the traditional role of teachers in BiH, whereby instruction serves to transmit knowledge, rather than work with students to develop their abilities and interests. Importantly, these assessment practices are norm-based, meaning students are graded based on their performance relative to other students in the class. This is partly because curricula of competent education authorities are often content-oriented and do not provide specific criteria based on state-wide or jurisdictional achievement standards, leaving teachers to develop their own assessment criteria. As a result, there is little room for criterion-based assessments, whereby teachers assess students based upon their mastery of competences set out in the curriculum; independently of how other students in the class perform.

While the start-of-year diagnostic tests encouraged by many BiH competent education authorities has the potential to serve as a formative assessment tool, these are not consistently applied. Other countries that mandate diagnostic assessments (e.g. Bulgaria, Romania and Serbia) face similar challenges (Maghnouj et al., 2020[12]; Kitchen et al., 2017[16]) (Guthrie et al., forthcoming[17]) . Moreover, some of rulebooks define continuous assessment as “summative assessment done more often” or as practice for a final summative assessment, whereas in reality, continuous assessment can serve both summative and formative purposes (Muskin, 2017[18]). The general lack of understanding and support for using assessment to support student learning has led to resistance in some parts of the country where policymakers have tried to move towards more formative and competence-based approaches to education. For example, when descriptive marking was introduced for the early grades, authorities in Brčko District reduced the policy’s coverage by one grade level because of major pushback from teachers and parents.

Most assessment rulebooks covered by this review lack clear comparative definitions of summative and formative assessment. Shifting the BiH assessment culture from teacher judgements on performance to an exercise that supports student learning will require clarity on the main types and forms of assessment, as well as support for teachers and other stakeholders to understand concepts included in student assessment frameworks. Clarifying the distinctions between key concepts, such as summative and formative assessment, as well as the main types of assessment (normative, criterion and mixed) would be a useful way to support teachers in BiH who report needing more support and training to effectively use a wider range of assessment practices in their classroom teaching.

Teachers lack support and training to develop their assessment literacy

Aside from the assessment rulebooks, teachers in BiH receive little, if any, support on how to develop valid, reliable and age-appropriate assessments. For example, most competent education authorities or pedagogical institutes do not provide examples of marked student work or facilitate moderation of grading within or between schools; such resources and practices are important to support effective classroom assessment (OECD, 2013[1]). Professional learning on assessment is also limited in BiH and reportedly based on theory from textbooks rather than practical techniques that teachers can apply in their daily practice. These challenges are exacerbated by the lack of attention given to student assessment during initial teacher education (ITE) programmes in BiH (see Chapter 3).

Despite heterogeneity in the content and quality of ITE programmes, there is a consensus that new teachers in BiH do not receive adequate preparation in assessment. Moreover, it is rare, if not unheard of, for teacher candidates to engage in programme modules explicitly dedicated to formative assessment. In fact, only one teacher that spoke with the OECD review team reported receiving training in student assessment as part of a graduate studies programme. The only assessment resource mentioned to the OECD review team (other than the assessment rulebooks) were test writing guidelines a teacher had received during an ITE programme undertaken in a neighbouring Western Balkan country. The lack of

attention to key concepts and theories behind a balanced assessment framework, as well as the lack of practical experience and support for using different types of assessment in the classroom, risks holding back efforts to introduce a more student-centred, competence-based curriculum and, through this, to improve student learning outcomes.

External assessments and examinations

At present, there is no standardised testing at the state-level in BiH as competent education authorities are responsible for determining student assessment policy. Eleven out of fourteen administrative units in BiH lack standardised data on student learning (Table 2.6). As a result, teachers' classroom assessments are often the only source of information about student achievement, making it very difficult to measure learning objectively and reliably.

Broadly speaking, there are two main testing instruments governments can use to collect standardised evidence about learning outcomes (OECD, 2013[1]). The first is an external examination, which has formal consequences for students and usually serves to certify achievement or inform selection into higher levels of education. There are currently three education authorities within BiH that conduct external examinations: Tuzla Canton (at the end of basic and secondary school; ISCED 2 and 3, respectively); Sarajevo Canton (at the end of basic school; ISCED 2) and RS (a pilot exam at end of basic education; ISCED 2). The second standardised testing instrument is an external assessment, which can take place at the international, national or local level(s) but do *not* carry consequences for students. Instead, external assessments provide information on learning, principally for system monitoring purposes. Within BiH, the RS is the only jurisdiction that has a low-stakes external assessment (in Grade 5), although other administrative units have experimented with this type of test. Overall, the very limited use of external tests within administrative units and at the state-level (compared to other Western Balkan and OECD economies) represent missed opportunities for education authorities in BiH to support more competence-based approaches to student assessment (Table 2.5).

Table 2.5. External examinations and assessments in the Western Balkans and select OECD economies

	External assessment (levels at which the assessment is administered)	External examination (levels after which the examination is administered)		Body responsible for developing the assessment/examination
		Lower secondary (ISCED 2)	Upper secondary (ISCED 3)	
Albania	Primary	●	●	Educational Services Centre (specialised central agency)
Austria	Lower secondary and Primary		●	Federal Institute for Education Research, Innovation and Development of the Austrian School System
Canada	Lower secondary		Varies	Central education council (Council of Ministers of Education, Canada)
Czech Republic	Upper secondary; Lower secondary and Primary		●	Central education authority or government (Ministry of Education); special institute of the Ministry of Education (Centre for the Evaluation of Educational Achievement)
Bosnia and Herzegovina		Varies* (only Sarajevo and Tuzla Cantons and RS entity)	Varies (only Tuzla Canton)	Pedagogical Institutes or equivalents of competent education authorities
Germany	Lower secondary and Primary	●	●	Institute for Educational Quality Improvement

	External assessment (levels at which the assessment is administered)	External examination (levels after which the examination is administered)		Body responsible for developing the assessment/examination
		Lower secondary (ISCED 2)	Upper secondary (ISCED 3)	
Kosovo[1]	-	●	●	Minister of Education, Science, Technology and Innovation
Mexico	Upper secondary; Lower secondary; Primary; Pre-primary	Varies	●	National Institute for Educational Assessment and Evaluation
Montenegro	-	●	●	Examination Centre
North Macedonia	Under development		●	The National Examination Centre
Serbia**	Under development	●	●	Serbia's Institute for Education Quality and Evaluation
Switzerland	Lower secondary and Primary		●	The Swiss Conference of Cantonal Ministers of Education
United States	Upper secondary; Lower secondary; Primary		●	National Centre for Education Statistics

Notes: *Primary education = ISCED 1 (primary education in BiH); lower secondary education = ISCED 2 (primary or basic education in BiH); upper secondary education = ISCED 3 (secondary education in BiH).
**Serbia's current examination at the end of upper secondary education is school-based, meaning it is developed, administered and marked in each school and is thus not standardised across the system. Serbia will introduce a new centralised examination starting in 2023/24. Policies in some economies differ according to internal governance structures.
Source: (OECD, 2015[19]) *Education at a Glance 2015: OECD Indicators*, http://dx.doi.org/10.1787/eag-2015-en; (OECD, 2020[15]) *Education in the Western Balkans: Findings from PISA*, https://doi.org/10.1787/764847ff-en; (OECD, 2013[1]), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment,* https://dx.doi.org/10.1787/9789264190658-en.

Participation in international assessments is limited compared to other European countries

Positively, BiH participated in the Programme for International Student Assessment (PISA) in 2018 and Trends in Mathematics and Science Study (TIMSS) in 2019, which provided the country with comparable data on learning outcomes for the first time in over a decade (see Chapter 5). Results from these international assessments provide an important benchmark for education in BiH, revealing that while students tend to perform similar to their peers in other Western Balkan economies, overall performance remains below the European Union (EU) and OECD averages and large shares of students do not master basic competences (see Chapter 1). Participation in international assessments also gives BiH stakeholders exposure to competence-based assessments and experience analysing the data they produce, which can aide competent education authorities in implementing competence-based curricula and using assessment to support learning. In BiH, international assessments also fill an important information gap given the country's decentralised governance structure and the lack of mechanisms to collect standardised learning data across all administrative units. For example, international assessments can provide comparable cross-country information on learning disparities between school types and student gender, language group and socio-economic background. Despite this, BiH's participation in international assessments is very limited compared to other European countries that now have decades of trend data available. Moreover, BiH recently missed the deadline to implement in PISA 2022, preventing education stakeholders from enjoying the benefits associated with regular participation in international assessments.

Despite some experimentation with using external standardised assessments, the RS entity is the only jurisdiction that currently has an external standardised assessment

Among the jurisdictions covered in this review, there has been some experimentation with using external standardised assessments that do not have consequences for students. In 2011, for example, APOSO

implemented a sample-based external assessment to students in third and sixth grades from across the country to measure achievement standards in local languages, science and mathematics (APOSO, 2021[5]). In 2013, another sample-based external assessment was administered to measure local languages and mathematics at the end of primary education (ISCED 2). However, these instruments were developed prior to the Common Core Curriculum and were never updated or used after their initial implementation. This is mainly because APOSO did not receive funding to continue administering the assessments.

In Sarajevo Canton, authorities introduced a pilot assessment in 2018 but this never materialised into a regular standardised assessment, partly because of student absenteeism and lack of reliable marking procedures (BiH, 2021[2]). At present, the RS entity is the only administrative unit in BiH with an external assessment that generates data on the learning outcomes of Grade 5 students. This sample-based assessment is administered annually and primarily supports RS as a system monitoring tool. It also generates school-level results. While external assessments cannot on their own provide a full measure for school quality, many countries use these results alongside other contextualised information (e.g. socio-economic background) to more equitably and meaningfully benchmark performance. Notably, the RS external assessment does not seem to provide feedback to inform teaching and learning practices, limiting its ability to have a positive impact on student outcomes.

Some school networks use external standardised assessments developed by private international companies

While it is not common practice, some individual schools in BiH purchase external assessment instruments to help regulate the quality of classroom assessments within their school networks. These assessment tools are often produced by private international companies (e.g. the Cambridge Progression Tests from the United Kingdom or International Baccalaureate to collect valid and reliable information about student learning to inform pedagogy and improve system management. This demonstrates a clear demand for external learning assessments among school leaders, teachers and parents within BiH. However, such instruments appear to be only available to international and/or elite schools that typically serve the country's most advantaged students.

A small number of administrative units in BiH administer external examinations

A small number of education authorities in BiH use standardised examinations, or standardised tests that have consequences for students. These exams provide their respective jurisdictions with valuable information about learning that can complement teachers' professional judgements. For example, Sarajevo Canton administers an external examination for students in Grade 9, the results of which translate to "points" that students use alongside their GPA to compete for places in secondary schools (ISECD 3). The RS entity has a similar external examination that the entity introduced as a pilot in 2018. Known as the RS Matura, this exam certifies learning at the end of basic education (Grade 9; ISCED 2) and helps allocate students to secondary schools (ISECD 3). Both of these exams were postponed in 2020/21 because of the COVID-19 pandemic and the RS Matura will only become mandatory for all students starting in the 2022/23 school year. Tuzla Canton, which this review did not study in-depth, administers the country's only external examination to certify completion of secondary education (ISCED 3). None of the other administrative units in BiH have standardised external examinations.

The use of external examinations in BiH differs from many OECD and EU countries. In particular, external exams at the end of basic school (e.g. in Sarajevo Canton and RS) have become less common internationally as policymakers seek to remove barriers to progression and reduce early tracking (Maghnouj et al., 2020[11]). The general lack of external examinations at the end of secondary education (ISCED 3) - except for Tuzla Canton - is another notable difference in the way that BiH education systems use examinations. Most OECD and EU countries use external exams at this level to help incentivise

learning, certify student achievement at the end of formal schooling and/or support more equitable progression to tertiary education (OECD, 2015[19]). Moreover, BiH lacks the co-ordination or moderation systems that exist in exam and qualifications systems in other federal countries. For example, in the United States, high school graduation diplomas are granted locally but higher education institutions often use standardised examinations, such as the Scholastic Assessment Test (SAT) and the ACT[2], as part of their entry criteria for admissions. While requirements vary, several Australian states and territories, as well as the majority of German *Länder* (i.e. states) have also introduced external examinations and/or moderation procedures to ensure the rigour and comparability of secondary qualifications (OECD, 2020[20]; OECD, 2011[21]).

Table 2.6. External standardised assessment and examinations developed within BiH

Administrative unit	Type of instrument	Eligibility	Item development	Subjects	Purpose
Sarajevo Canton	Exam	All students in Grade 9 (est. 2012/13)	Pedagogical Institute	1) Bosnian, Croatian, Serbian Language and Literature; 2) Mathematics; and 3) First Foreign Language	Results account for 30 points to qualify for enrolment in secondary school, other points are based on overall classroom marks and achievement in specific subjects relevant to the type of secondary school to which they are applying
Sarajevo Canton	Assessment (pilot 2018)*		Pedagogical Institute		To evaluate student knowledge
Tuzla Canton**	Exam	All students at end of lower and upper secondary education (i.e. after ISCED 2 and ISCED 3; referred to as primary and secondary education in BiH)			
West Herzegovina Canton	No external standardised assessments or examinations				
Central Bosnian Canton	No external standardised assessments or examinations				
Brčko District	No external standardised assessments or examinations				
Republika Srpska	Assessment	All students in Grade 5 (est. 2013/14)	Republican Pedagogical Institute	1) Serbian language and 2) Mathematics	- to determine achievement of learning outcomes - to support teachers in delivering the curricula.
Republika Srpska	Exam (pilot)	All students in Grade 9 (piloted in 2018/19; to be implemented in 2022/23)	Republican Pedagogical Institute	1) Serbian language and 2) Mathematics	

Notes: *The 2018 Sarajevo pilot never materialised into a regular standardised assessment, partly because of student absenteeism and lack of objectivity in teachers responsible for marking the assessments.
**Tuzla Canton was not covered in the sample of this review but is included in the table because it is the only other canton besides Sarajevo that has implemented a standardised examination.
Source: (BiH, 2021[2]), *Country Background Report for the OECD Review of Evaluation and Assessment in Education: Bosnia and Herzegovina*, Unpublished.

There are concerns with external examinations in jurisdictions where they exist

Stakeholders reported to the OECD review team that external examination instruments that exist within certain jurisdictions face several challenges, including lack of alignment with competence-based curricula (e.g. they remain content based and focus on reproducing knowledge rather than measuring higher-order competences), and weak marking procedures. These challenges undermine overall trust, as well as the validity and reliability of the exam instruments, which is crucial since these tests have high stakes for

students. They also present a risk that the exams will have a negative backwash effect on their respective education systems, since teachers may continue using more traditional methods to teach and assess students based on the current exam instruments, rather than helping students develop the higher-order and transversal competences that students need for success in the 21st Century.

Most administrative units lack the capacity and resources to develop their own external standardised assessments

Several of the education authorities that participated in this review cited challenges related to staff capacity, limited funding and lack of political will as the main barriers to developing and implementing standardised testing instruments in their jurisdictions. Considering the costs and resources needed to implement large-scale standardised tests, BiH education systems could increase efficiencies and the quality of testing instruments by collaborating to develop standardised assessments. Sharing the costs of standardised testing would be beneficial to smaller jurisdictions, like Brčko District, which would likely struggle to develop and implement such instruments independently. It would benefit other jurisdictions as well by strengthening the quality and relevance of local standardised assessments. Other countries have raised financial and technical resources to support standardised assessment by leveraging support from international and donor agencies. For example, an NGO in North Macedonia implemented an assessment of learning outcomes in the early grades in 2016 (OECD, 2019[9]) and beyond the Western Balkans, in Kazakhstan, the National Testing Centre received support from the World Bank to improve the technical infrastructure for external assessment (OECD, 2020[22]). Despite multiple offers in the last decade, BiH officials have not found an effective arrangement that would allow them to use support from donors to establish external assessments or examinations at the state or local levels.

Despite several attempts BiH has not yet developed a state-level external examination of student learning

External examinations indicate student achievement, can help motivate students and arguably provide a fairer basis for taking decisions when opportunities are constrained, especially in contexts dealing with challenges related to grade inflation (OECD, 2013[1]). In the past two decades, there have been several attempts to introduce a common external examination, or standardised Matura, at the end of secondary education (ISCED 3) across BiH. However, these efforts have been unsuccessful, mainly because of a lack of political collaboration and resource constraints. This situation has implications for the education sector, as teachers face pressure to inflate student grades and there is no way for students to objectively benchmark their learning. Some of the previous and ongoing attempts to establish a BiH Matura include:

- **2005 – EU Project on the Reform of General Education in BiH**. As part of a broad EU project to support education reform in BiH, the Ministry of Civil Affairs worked with EU officials to develop a "Framework Matura." The document set out guidelines for implementing a Matura exam, standards for proficiency in mother tongue language and mathematics, as well as standards for graduation from secondary school (ISCED 3) at the state-level. The Framework Matura was shared with competent education authorities for their consideration and adoption; however, there was a lack of consensus on the terms of the instrument and BiH never implemented this instrument.
- **2011 – EU Project on Strengthening APOSO's Institutional Capacity**. In 2011 APOSO worked with a Slovenian consortium consisting of the State Examination Centre and the Institute for Education and the School for Principals to develop guidelines for establishing a BiH examination at the end of upper secondary education (ISCED 3, secondary education in BiH) (Slovenian Expert Group, 2011[23]). The guidelines built on Slovenia's nearly 20 years of experience implementing its own State Matura and included many features of international best practice. Namely, setting up a working group to determine the purpose of the exam, steps for developing the instrument and how officials might adapt the general Matura to assess the competences of students enrolled in

vocational education and training (VET) programmes. The guidance document also included considerations specific to the BiH context, such as establishing regional assessment centres to help develop the Matura, with co-ordination led by APOSO. However, some competent education authorities argued this arrangement would undermine their autonomy to set graduation requirements with their jurisdiction. Since establishing a BiH State Matura depends exclusively on the agreement of competent education authorities, the lack of political support prevented this interested parties from developing a formal BiH Matura instrument.

- **2014-2017 "Development of the Qualifications Framework for General Education" project developed under the European Union's Instrument for Pre-Accession Assistance.** This initiative attempted to establish standards and moderation procedures for an external Matura in BiH. It also set out a roadmap for implementing the examination, with cost estimates and the required technical capacity to conduct this activity. While the project led to the creation of guidelines on teaching and assessment practices to promote better student learning outcomes, it did not lead to an external BiH Matura. Current and ongoing projects under the Instrument for Pre-Accession Assistance could represent yet another important opportunity for competent education authorities to collaborate in developing an external Matura in BiH.

Agencies and actors with responsibilities for student assessment

Capacity to develop and support student assessment policies across BiH is very weak. The only state-level agency with real technical experience in this area is APOSO, which has an over-stretched mandate and faces significant capacity challenges. Moreover, APOSO is primarily an implementation, standard-setting and evaluation body that operates independently but in co-operation with competent education authorities. This context results in education authorities and their pedagogical institutes or their equivalents often trying to provide their own tools to support student assessment. While some of the larger administrative units have the capacity to do this successfully, some lack the resources and expertise needed to develop the range of materials and trainings that can support high-quality student assessment.

The Agency for Pre-Primary, Primary and Secondary Education faces capacity limitations that prevent it from supporting more comprehensive student assessment

APOSO is a state-level technical agency with a mandate to "collect, consolidate, process and publish" evidence on the quality of BiH education systems. Among its various activities, the agency is responsible for developing and conducting extensive surveys and evaluations, such as managing BiH's participation in large-scale international student assessments (see Chapter 5). As an expert body, APOSO could be well placed to consolidate expertise in the area of student assessment and examinations. However, the agency faces major human and financial capacity constraints. For example, around 25 employees work across APOSO's three branches (located in Banja Luka, Mostar and Sarajevo), none of which are full-time information and communications technology (ICT) experts or psychometricians. Reportedly, only three APOSO staff member have considerable experience conducting large-scale standardised assessments.

To supplement the agency's expertise and experience in the area of evaluation and assessment, APOSO sometimes contracts external experts with support from the international donor community. Drawing on external expertise can help mobilise and strengthen assessment capacity. However, to support more comprehensive student assessment frameworks across BiH, APOSO needs adequate and sustainable resources to develop its institutional memory, as well as its internal expertise in relevant fields.

Competent education authorities define student assessment policies but few have capacity to support their implementation

Competent education authorities, alongside their respective pedagogical institutes, are responsible for defining curricula, learning standards and student assessment policies. However, these actors generally have very limited capacity to support quality classroom assessments and develop external tests that can support education goals in their jurisdictions. For example, Brčko District has not updated its student assessment rulebook since 2010, leaving stakeholders with outdated assessment policies that do not reflect a competence-based approach to education. Moreover, competent education authorities covered by this review do not produce resources to help teachers and schools navigate their curriculum and assessment rulebooks, hindering the implementation of more formative assessment policies like diagnostic assessments.

Policy issues

Despite efforts at the state-level and among competent education authorities, student assessment policies and practices in BiH remain weak and fragmented compared to other Western Balkan economies. While this is partly caused by the lack of co-operation at the state-level, there are major gaps in terms of the assessment tools available to help measure student learning, improve instruction and strengthen the overall quality and equity of education at the level of administrative units and the state. With few exceptions, teachers have no support to create authentic and valid assessment tasks, nor guidance on how to use results to inform instruction and provide feedback in a way that can help students progress in their learning. In many cases, they also lack clear learning expectations for many subjects and grade levels, and must establish their own assessment criteria without any structured moderation processes or reliable benchmarks. The lack of shared assessment criteria within administrative units creates opportunities for parents and caregivers to pressure teachers to increase student grades, contributing to grade inflation, undermining the rigour of certifications and diminishing the fairness of selection into higher levels of education.

These challenges are exacerbated by the fact that most education systems in BiH lack reliable external data on student learning. And despite several previous attempts to develop a standardised test at the state level or within some CEA's, the grades students receive from their teachers continue to play a major role in determining their future opportunities in most parts of the country. To use assessment as a tool for supporting student learning, the country's administrative units will need to work collaboratively with the teaching profession, teacher education providers and schools to shift the culture of assessment in BiH towards one that provides constructive feedback that can help each student to develop the competences needed for success, regardless of what pathway they choose after secondary school (ISCED 3). Given the shortage of technical expertise and capacities, progress in these areas will likely be difficult unless accompanied by greater collaboration across administrative units and at the state-level.

Policy issue 2.1. Strengthening the educational value of student assessment

In the last 5 years, international and state level actors in BiH, as well as competent education authorities have been working to implement more competence-based approaches to teaching and learning. These efforts have led to a greater emphasis on the key competences that students need for success in further studies, work and life. However, while BiH is very experienced with summative assessments that measure knowledge, there is a need for more balanced assessment frameworks that advance a student-centred and competence-based learning agenda. This includes much more focus on how to assess learning in relation to specified outcomes and standards, and how to integrate assessment results and feedback into the teaching and learning process. At present, teachers in BiH are generally left on their own to develop

assessment criteria, receive limited professional development on formative assessment practices and have few, if any, resources available to help strengthen their overall assessment literacy. To help teachers appropriate more effective assessment practices, BiH authorities will need to work with the teaching profession, education experts and other actors to develop the resources, training and professional networks needed to foster a new assessment culture in BiH from the bottom-up. Involving parents and the wider society in these changes will also be crucial: without their understanding of why and how changes to assessment practices can benefit their children, there is likely to be resistance to reforms.

Recommendation 2.1.1. Take steps to shift the culture of learning and assessment

The introduction of new competence-based curricula in many parts of BiH provides an opportune moment to strengthen the link between assessment and learning. Many of the administrative units covered by this review already have elements within their student assessment frameworks that can support this link, notably descriptors to accompany quantitative marks and start-of-year diagnostic tests. However, many teachers continue to struggle in understanding how to implement these formative practices and with few exceptions, there are no resources or training opportunities that help them do so. Changes to how teachers assess student learning in BiH are also confronted with pressure for accountability in the form of grades and rankings. In addition to parental pressure, there is also political and public pressure from teacher unions and the wider society to maintain more traditional forms of assessment and avoid elements like external assessments. While attention to results is a positive feature of education systems, an over-emphasis on these may have a negative impact, narrowing the focus of learning and undermining both student agency and the formative role of assessment (OECD, 2013[1]). To enhance the learning value of student assessment, competent education authorities will need to adjust their rulebooks to emphasise a more balanced set of assessment practices and ensure that students receive feedback on how they can improve. Government authorities will also need to communicate the value of formative assessment to all interested stakeholders to build buy-in and support for the new, learner-focused culture of assessment.

Adjust the student assessment rulebooks of competent education authorities to emphasise a more balanced set of assessment purposes

Existing policy documentation in BiH often focuses on logistical and organisational aspects of student assessment, emphasising the role of summative and normative assessments. To promote a more balanced assessment framework that supports student learning, competent education authorities should adjust their respective assessment rulebooks to clearly define the various components and instruments included in their assessment frameworks, as well as the different purposes of these assessment types, their added value, and how they work together. To support local authorities in adjusting their rulebooks, APOSO could develop or commission a reference document that outlines key assessment principles based on international research. Together, such efforts can help build a new assessment culture in BiH that more closely aligns with the learning outcomes and competence-based approach that education systems in the country seek to implement. Specifically, revised local assessment rulebooks should:

- **Clearly reference standards of student achievement**. Local assessment rulebooks should set a clear expectation that teachers measure student achievement against a defined set of learning standards that state what students should know and be able to do at each level of schooling (see below). Competent education authorities can use the Common Core Curricula based on Learning Outcomes developed by APOSO. They may also add their own standards for certain subjects or curricular elements. In Germany, common educational standards for primary education (ISCED 1) apply to all Länder but local curricula reveal concrete and binding competence expectations for specific subjects (Eurydice, n.d.[24]).
- **Emphasise use of assessment for different purposes.** Rulebooks should provide comparative definitions of formative and summative assessment. While these purposes of assessment are

synergic and cannot be sharply separated (Black and Wiliam, 2018[10]), for teachers working in a system under transition, clarification around the two approaches and how they relate would be useful. Rulebooks could also define other key assessment techniques and topics, such as reliability and validity, which would provide a reference and base for teachers to strengthen their assessment literacy.

- **Adjust how summative assessments are given.** There is also room to adjust the current qualitative descriptors used in the grading systems to reflect progression towards mastery of competences, rather than using labels such as "good" or "poor." Instead, competent education authorities might express student results using language that can be more motivational for low performers, such as exemplary (5) or under-developed (1). Defining these descriptors in local assessment rulebooks, as Central Bosnia Canton has already done, can also help teachers communicate the meaning of the marks they assign to students more effectively.
- **Collect and monitor examples of classroom assessments.** To help create tools for supporting teachers' assessment literacy (see Recommendation 2.1.2), student assessment rulebooks might require that teachers provide a certain number of their classroom assessments as samples to pedagogical institutes or their equivalent in their ministry. This would allow local governments to monitor the quality of classroom assessments, identify strong examples of assessment to share with the teaching profession more broadly, and help identify areas where teachers may need support to strengthen their assessment practice.

Make reporting students' assessment results more conducive to learning

Changing specific reporting practices can help close implementation gaps between competence-based curricula and teachers' classroom assessment practices. In OECD countries where summative scoring has tended to weigh heavily, such as France, revisions to student reports has been a particularly effective way to communicate and embed new expectations for classroom assessment. At present, schools and teachers in BiH have discretion on the criteria for assessing students and reporting on results, which can lead to inconsistencies in the type of feedback students receive and risks leaving them with little information on how to improve. For assessment to have a greater impact on learning in BiH, competent education authorities should require teachers to regularly provide feedback to students beyond the existing qualitative descriptors (Table 2.7). This feedback should consist of written feedback to individual students at least once a semester and oral feedback on other occasions.

Developing report card templates that make space for descriptive and formative feedback, as well as the summative grades that currently dominate assessment practices is another way to facilitate more formative feedback (Box 2.2). For example, while students get final grades for the end of each semester, only the end-of-year grade is included in the official certification of completion. This creates an opportunity to transform the final grade of the first semester into a more formative report that helps teachers plan and guides students on how they can improve in the following semester. As part of these templates, education authorities should consider requiring older students to provide input on their own learning targets and reflections about the marks they receive, as these elements can support student agency.

Table 2.7. Examples of teacher feedback that can support learning

Feedback type	Examples
Identifying errors	Underline or circle words | "?"
Explaining misunderstandings	This data is out of date | Don't forget | Recent data shows
Demonstrating correct practice	Inserting corrections | New sentence
Engaging students in thinking	Why? | Is this logical? | Does this follow? | Is there an alternative interpretation?
Suggesting further study	"See…for information" | "Try reading… to develop your thinking further."
Justifying marks	"I could not award a higher mark because of xxx" | "This analysis made a strong contribution to your grade".
Suggesting approaches to future work	"In future assignments I recommend…" |"Try to develop your…"
Aligning progress from previous attainment	"I can see how you have developed this". | "You have made progress here".

Source: Adapted from Orsmond and Merry (2011[30]), "Feedback alignment: effective and ineffective links between tutors' and students' understanding of coursework feedback", Assessment & Evaluation in Higher Education, Vol. 36/2, pp. 125-136, https://dx.doi.org/10.1080/02602930903201651.

Box 2.2. Enhancing the recording and reporting of student assessment data in Denmark

Since 2006, all primary and lower secondary schools (ISCED 1 and 2, respectively) in Denmark must provide Individual Mandatory Student Plans (IMSPs) tracking student progress. These include a summary of students' results and qualitative feedback on how these will be followed up. For national assessments, formative comments on student performance are included but not marks. The IMSPs are not a simple report card or performance tracker, but rather a working tool for teachers, forming the basis of discussions between students and teachers, as well as with parents. They also provide a record of student achievement that, throughout compulsory education, eases transitions between grades. Denmark's IMSPs continue to evolve, including conversion to digital format to make them more accessible to students, parents and teachers. The digital platform enables teachers to collate information on progress, goals and student assessments, as well as recording the specific goals for the individual student, a progress status in relation to the goals and a monitoring section describing how and when to follow up.

Source: (Shewbridge, 2011[25]) *OECD Reviews of Evaluation and Assessment in Education: Denmark 2011*, https://doi.org/10.1787/9789264116597-en; (OECD, 2020[26]), *Education Policy Outlook: Denmark*, http://www.oecd.org/education/policy-outlook/country-profile-Denmark-2020.pdf (accessed on 18 August 2021).

Providing feedback that is conducive to student learning can significantly add to the non-teaching workload of teachers. Therefore, key considerations for competent education authorities will be keeping report cards and other feedback expectations simple, as well as developing guidance materials to explain how teachers should use these tools. School principals and teachers will also need preparation to explain learning progress to students and parents. Sharing best practices for communication (e.g. phone calls, email, videoconference, and in-person) and the circumstances under which each mode is most pertinent, as well as the frequency of communications can be helpful in this regard. Competent education authorities will also need to address factors that may make it difficult for teachers in BiH to gain confidence and skill in using the new approaches to assessment.

Communicate the value of assessment through a dedicated digital platform as a means to support teaching and learning

In addition to clearly defining assessment principles in local rulebooks, government authorities in BiH can establish a website specifically dedicated to promoting competence-based curricula and associated assessment practices. For example, when Portugal introduced the Project for Autonomy and Curricular Flexibility in 2017 to support the implementation of its new curriculum, the Ministry of Education established a central website that served as a digital resource for reflection and the sharing of practices, as well as a digital library for documentation to support teachers in their curricular and pedagogical decisions (Portuguese Ministry of Education, 2021[27]). Today, Portugal's curriculum and assessment website continues to grow and support the country's curriculum reform by providing links to official legislation, examples of good practice, access to webinars and presentations and regularly updated news and events. In BiH, some cantons have already started piloting digital platforms to support their curricula and assessment policies, which could be scaled up to include a wider range of assessment tools. APOSO could also host a website (potentially with funding from donor organisations), that serves as a compendium of competence-based curricular documents from across the country, to support peer-learning. This central website could include links to the respective websites of the curricula of competent education authorities but also serve as a platform for sharing and discussing digital versions of expected learning outcomes in the CCC and support materials. Over time, this website can provide a range of student assessment resources targeted towards teachers, students, parents and the public.

Recommendation 2.1.2. Collaborate with teachers and other actors to create resources that strengthen the educational value of classroom assessments

It is positive that APOSO has already developed (and continues to develop) student achievement standards for some key grade levels and learning areas of the CCC, as this provides a reference for student assessments. However, many subject areas and grade levels still do not have clearly-defined standards, making it difficult for teachers to form a valid and reliable assessment of where students are in their learning. Finalising the development of learning standards at each grade level should therefore be a top priority for APOSO. Teachers in BiH also lack the resources to help them use learning standards as a reference for classroom teaching and assessment. Competent education authorities should take decisions about what specific supports and incentives could facilitate such implementation in their jurisdiction. For example, entity or canton authorities could require teachers to record descriptive feedback and justification for some of their marks vis-à-vis the learning standards. However, there are also opportunities for APOSO to work directly with competent education authorities, expert teachers from across the country, as well as relevant non-government organisations and other partners, to prepare core materials that can immediately help teachers appropriate the standards. Some of these materials may include examples of marked student work, assessment tasks and diagnostic assessment tools. Such resources can be powerful tools to improve the quality of teacher assessment practices and direct student learning towards the mastery of key competences.

Finalise student achievement standards for all grade levels and key subject areas at the BiH-level (to serve as an example for competent education authorities)

While competent education authorities will continue to choose their own curricula (i.e. what and how students learn and teachers teach), having a common set of learning standards can help reinforce local efforts to ensure that all students achieve basic competences needed for further education, training or careers. The United States, for example, defines common learning standards at the country level; however, these are elaborated for all grades instead of only for key curricula stages. Other countries in Southeast Europe, including Bulgaria and Serbia, have also developed learning standards for each grade level. Having a working model of what students are expected to know and be able to do in each grade can help

teachers diagnose learning needs and assess progress throughout curricular cycles, rather than just at the end. APOSO should therefore finalise its current plans to develop BiH learning standards for key grades and subjects and in the future, extend these to cover all grade levels.

Provide examples of student work to help teachers appropriate the learning standards

Providing marked exemplars of student work would help demonstrate what achievement of the learning standards looks like at different performance levels. These materials should be made available on a dedicated online platform. For example, Ireland has a dedicated website that includes examples of student work illustrating three levels of achievements (at expectation, ahead of expectation or yet to meet expectation) for each of the country's learning outcomes (NCCA, n.d.[28]). To collect exemplars in BiH, APOSO should work in co-operation with pedagogical institutes and organised groups of expert teachers from across the country who can not only identify examples of student work but also provide commentary on how a specific piece of work demonstrates a given level of achievement. Teachers and schools can then work in subject teams to enrich the initial base of examples and discuss students' work in relation to the standards. While these activities can be done across all grade levels and subject areas, APOSO and pedagogical institutes from competent education authorities might choose to start disseminating examples of student work at the primary level (ISCED 1) and in key subjects, to help reinforce foundational skills and knowledge early on. These efforts would help teachers develop more reliable and consistent classroom assessments, as well as give feedback to help students progress in their learning.

Make full use of start-of-year diagnostic assessments

Most competent education authorities reference start-of-year "initial checks" or diagnostic tests in their assessment rulebooks. These can be helpful to identify gaps in learning as they emerge since evidence from international assessments reveal that many students progress through BiH schools without meeting basic competences. However, teachers receive no guidance on how to conduct these checks or what the results should be used for. In several OECD and EU countries, diagnostic tests are an important type of formative assessment that help establish a baseline of students' prior knowledge, strengths, weaknesses and learning needs and to inform teacher planning and instruction (OECD, 2013[1]). To support teachers in BiH to make full use of the start-of-year diagnostic assessments, competent education authorities should:

- **Introduce reporting requirements for diagnostic assessments.** Requiring teachers to share qualitative feedback from their diagnostic assessments with students and parents can provide a reference point for monitoring progress and designing individualised learning plans. Critically, reporting should not include a numerical grade, but rather focus on descriptive feedback that identifies what the student already knows and can do, as well as the knowledge or skills that need strengthening in order to achieve learning standards. Providing reporting templates and guidance on how to interpret results would help ensure that reporting supports teaching and learning.
- **Continue making use of pedagogical institutes to help plan, implement and analyse diagnostic assessments.** Administrative units with pedagogical institutes should use these bodies (or their education ministries) to work directly with schools and/or groups of teachers to explain and explore specific diagnostic assessment tools as part of the methodological support they provide to teachers. This would help schools and teachers benefit from diagnostic assessment tools that meet their individual needs.

Considering the time and expertise needed to develop high-quality diagnostic assessments, a number of countries have found it more efficient and effective to provide centrally developed diagnostic assessment tools. In Romania, for example, the government develops standardised diagnostic tests for key grade levels. Serbia has a similar practice but also develops templates for marking tests at the school level (Maghnouj et al., 2020[12]). In Estonia, diagnostic tools are digital and accompanied by a series of e-tasks

that enable teachers to easily individualise instruction and group students for different activities based on their performance in the tests (Innove, n.d.[29]) (OECD, 2019[30]). In BiH, APOSO and the pedagogical institutes of competent education authorities could work with other relevant actors, such as non-governmental organisations, academic researchers within higher education institutions or private assessment companies, to provide diagnostic assessments and other central tools directly to teachers through the new assessment platform (see Recommendation 2.1.1). Creating these tools will require capacity, time and resources. APOSO should therefore consider prioritising the development of diagnostic tools for early years of schooling first, as identifying and addressing learning gaps before they become problematic can have a larger positive impact on student outcomes. Competent education authorities with the technical capacity could also develop their own diagnostic assessment tools and platforms; however, for most authorities, their efforts and resources could be better spent encouraging the use of diagnostic assessment through legislation and methodological support to schools. Combining state-level, as well as RS entity, cantonal and Brčko District requirements and tools, alongside teacher-led initiatives can help establish diagnostic tests as part of a more comprehensive assessment framework that supports the development of core competence.

In the medium term, give teachers external data about student performance to benchmark their classroom assessments

External benchmarks of student achievement, such as results in standardised examinations or assessments, can support teachers in making accurate judgements about student progress because they provide a reliable reference for expected or adequate progress (OECD, 2013[1]). This information can be particularly helpful when the assessment literacy of teachers is low. As BiH builds the technical capacity to conduct and use standardised assessments (see □), the results of these instruments can provide such external benchmarks (see Chapter 5). To do this, APOSO, and/or actors with responsibility for standardised tests in RS, cantons of FBiH or Brčko District, should provide detailed information on the average achievement of students in relation to specific outcomes, which would allow teachers to compare their students' performance. Test developers could also release items where students on average perform well and poorly to help orient teachers on what they might reinforce in their own classroom assessments.

Recommendation 2.1.3. Provide teachers with training and support to develop their assessment literacy

Using assessment to support learning requires changing schools and teachers' practices, their beliefs, and the pedagogical materials they design and use. As in other countries in the region, encouraging greater use of formative assessment in BiH will require developing teachers' assessment literacy, but also building their understanding of why it matters (Kitchen et al., 2017[16]; Maghnouj et al., 2020[11]). The quality of initial teacher education in BiH is often considered insufficient and participation in professional development is generally low (see Chapter 3). Moreover, the RS was the only administrative unit covered by this review where teachers reported participating in specific training modules on how to assess students; although some of this training was reportedly theoretical and based on textbooks, rather than providing practical experience and tools that teachers could apply to their assessment practice. This suggests a clear need for guidance and training related to student assessment.

Improve the coverage of student assessment topics in ITE programmes

Research indicates that if teachers do not learn to meaningfully apply formative assessment practices during their initial education, this will limit their ability to apply formative assessment throughout their career (Earl, 2007[31]). Teacher candidates in BiH could benefit from more explicit instruction and practice in using formative assessment as part of broader efforts by education authorities to implement more competence-based and student-centred approaches to their school systems. Without addressing this issue in initial

teacher education, teachers risk replicating traditional assessment practices rather than implementing more comprehensive approaches that can better support learning. Policymakers in BiH should consider one or more of the following steps to improve the quality of initial teacher education in this area:

- **Include student assessment in programme-specific accreditation criteria for ITE.** Many OECD countries have introduced mandatory, programme-level accreditation criteria to set minimum standards for ITE providers (see Chapter 3). Including requirements that explicitly require ITE providers to prepare teacher candidates to use a range of student assessment practices can help, giving this topic more attention in programmes. Providers may also need guidance on how to develop courses on student assessment in order to meet these new criteria.
- **Incorporate competences related to student assessment as part of the professional standards for graduate teachers**. In future reviews of professional teacher standards, competent education authorities in BiH could introduce "graduate" or "new teacher" competences that set clear expectations of what beginner teachers should know and be able to do with respect to student assessment (see Chapter 3). Experience from New South Wales (Australia) can provide insights for this type of policy approach (see Box 2.3).

Box 2.3. Beginner teacher competences that include student assessment in Australia

In New South Wales (Australia), the Board of Studies, Teaching and Educational Standards, (now the New South Wales Education Standards Authority) identified key elements in the area of assessment that describe the qualities expected of beginning teachers and used these to develop a framework for addressing assessment in initial education programmes. These elements include: knowing the purpose of formative and summative assessment, as well as how to use both in the classroom; knowing how to improve assessment reliability, such as through moderation; having sufficient data literacy to be able to use results from large-scale assessments to improve student learning; and understanding the importance of developing criteria for evaluating performance on assessments at different levels.

Source: (NESA, 2021[32]), *Graduate: Standard Descriptors*, https://educationstandards.nsw.edu.au/wps/portal/nesa/teacher-accreditation/meeting-requirements/the-standards/graduate-teacher (accessed 18 December 2021).

Build the assessment literacy of teachers through their initial education and practicum experience

A growing body of research suggests that grounding initial teacher education in practical learning experiences is a critical part of preparing new teachers and can have a positive impact on student learning and teacher retention (OECD, 2019[33]). Positively, most ITE programmes in BiH include a teaching practicum; however, the duration and quality of these experiences vary, which risks leaving some teachers unprepared for work in the classroom (see Chapter 3). To reinforce teachers' assessment literacy, competent education authorities could partner with ITE providers in training a cadre of experienced mentor teachers in student assessment practices. This would help ensure that mentors have a clear understanding of the assessment components that align with competence-based curricula. Another way to ensure that experienced teachers understand the value of and are able to use a balanced range of student-centred assessment practices (e.g. diagnostic, summative and formative, etc.), is to incorporate these expectations into professional teacher standards. Teachers that demonstrate mastery in this area could then be rewarded with higher responsibilities, such as serving as assessment leads in their schools or as mentors to new teachers. The digital platform of assessment resources (see Recommendation 2.1.1) could also support teachers and mentors to emphasise student assessment during the practicum experience.

Offer training and support for peer-learning among teachers on the topic of student assessment

Promoting quality professional development on student assessment is crucial to reaching wider cohorts of teachers. This professional development can take the form of formal workshops or webinars, or as job-embedded activities that can help relate the content of training to the specific school and classroom (OECD, 2013[1]). Positively, some schools and teachers in BiH already organise internal school networks (e.g. by subject or grade level) to discuss assessment criteria and practices. However, these networks are largely dependent on individual initiatives. There are several ways competent education authorities in BiH can more actively strengthen the assessment literacy of practicing teachers, for example:

- **Encourage schools to consider student assessment as a core professional competence.** Student assessment practices should be reviewed and discussed as an integrated part of all in-school teacher appraisals, starting from the teachers' practicum to more advanced levels of experience (see Chapter 3). This will not only involve including student assessment competences among professional teacher standards (see Recommendation 3.1.1) but also giving teachers opportunities to lead key improvements in this area (e.g. by serving as assessment leads in their schools). International experience also suggests that school principals have an essential role in changing a school's culture, as well as managing social and parental pressures (OECD, 2012[34]). Therefore, school leaders will need training and support to become instructional leaders (see Chapter 4) and emphasise the links between assessment and learning in their schools.
- **Build capacity for student assessment.** Pedagogical Institutes or their equivalents would be well placed to facilitate between-school moderation processes whereby teachers of the same subject who work in different schools, mark each other's assessments and discuss differences in their marking. Research suggests that moderation can help teachers build a shared understanding of criteria for marking and expectations for learning, and it is a key strategy for improving the reliability of teacher judgements and marking within and across schools (OECD, 2013[1]). This would also be a low-cost and effective way to help teachers identify learning issues early on. Moderation could be conducted at first with end-of-term assessments and then extended to other types of assessments.
- **Create space for school-based discussions on assessment.** BiH could formalise and scale up the existing practice of discussing student assessment among teachers in the same school. For example, schools could establish assessment teams to organise peer-learning activities, such as peer classroom observations, coaching, in-school moderation procedures and the co-creation of instructional material. These activities could form the basis for targeted and reflective discussions around improving teacher practice in the area of assessment and could be championed by lead teachers or principals (Harrison, 2005[35]; Tang et al., 2010[36]; Darling-Hammond and Rothman, 2011[37]).

Establishing student assessment as a policy priority for teacher professional development, could also help orient the international donor community in BiH to provide support in this area. There are several good examples from international experience of donor programmes that have helped develop sustainable assessment capabilities in other countries. For example, in Georgia, the United States Agency for International Development (USAID) organised peer-learning circles for teachers to discuss student achievement and ways to improve instruction (Li et al., 2019[38]). A similar arrangement could benefit professional learning networks for teachers and schools in BiH.

Policy issue 2.2. Prioritising the development and implementation of external examinations

Reforming examinations in BiH would be a strong lever to focus the country's education systems on the importance of developing key competences, regardless of the specific curricula, what secondary track students complete or where they attended school. This is an important and widely recognised goal across European education systems. Combining an optional and standardised Matura that is open to all BiH students at the end of secondary school (ISCED 3), with graduation requirements set by competent education authorities, would send a signal that all children should be supported to complete formal schooling with a valued and rigorous certification. This certification should also be recognised both across BiH and on a par with international certificates, which would facilitate the mobility of talent across the country by creating a recognised "passport" that students have mastered foundational knowledge and skills and are well prepared for their future endeavours. Ensuring the BiH Matura leads to equal opportunities after secondary school (ISCED 3), including post-secondary VET programmes, higher education or careers, can also support the broader equity and inclusion goals.

At present, there are no standardised state-level examinations developed and implemented in BiH and only one canton (Tuzla) has a standardised external exam at the end of secondary education (ISCED 3). However, standardised examinations have been implemented at the end of basic schooling (ISCED 2) in other entities and cantons, which can help inform decisions about students' pathways into the secondary level (ISCED 3). In reality however, many jurisdictions in BiH are unable to develop and implement such instruments on their own because they lack the required financial resources and technical capacity. As a result, teachers often carry the full responsibility for making judgements on student achievement, not only throughout school, but also at important transition points. This would be a challenge for teachers in any education system, as external exams reinforce independence, reliability and equity - factors that are critical for high stakes decisions and help protect teachers from pressures to inflate grades. This issue is particularly acute in BiH, as many teachers lack the assessment skills and the support needed to make such consequential judgements.

This situation has negative consequences for student learning: the fact that more than half of students across BiH do not achieve baseline proficiency on the PISA reading test by age 15 suggests that students are moving through the country's school systems without a clear understanding of whether they have mastered foundational competences, such as literacy or mathematics (OECD, 2019[39]). The lack of reliable metrics and external benchmarks also has wider implications – for discriminating aptitude for higher education, for signalling skills to employers and for efforts to focus schools on developing the human capital BiH needs for broader economic development. These considerations make reform to the country's examinations system a priority from both an educational and socio-economic perspective.

Recommendation 2.2.1. Develop an optional external examination of core competences

The majority of competent education authorities in BiH do not provide students with a chance to validate their knowledge, skills and competences through an external examination (Matura) at the end of secondary school (ISCED 3). In a country where grade inflation is a widely recognised problem, this creates a range of challenges related to the rigour and reliability of secondary school (ISCED 3) diplomas, as well as to the fairness and efficiency in how decisions about students' future are made. To address these challenges, competent education authorities and APOSO should work together, with support from the donor community, to develop an optional external examination of core competences at the end of secondary education (ISCED 3). This new, BiH Matura should be optional for competent education authorities (at least in the beginning) and limited to an assessment of students' core competences (e.g. literacy, numeracy and science). The results from this exam should be considered as part of a wider range of graduation requirements set by competent education authorities, which would help raise the value of

secondary qualifications by certifying the mastery of core competences. It might also serve as a criteria for university selection, which would help improve the fairness of university selection and ensure admissions processes are based on merit. The development of the optional BiH Matura should be a policy priority for education authorities, as the instrument could help raise learning outcomes by communicating expectations of the CCC and sending a strong signal that all students in BiH should graduate with foundational knowledge and skills.

Establish a steering committee comprised of representatives from competent education authorities and APOSO to develop an optional BiH Matura

Previous proposals to establish an external examination that is available to all students in BiH have been blocked by political impasse. Future efforts should therefore focus on the competent education authorities that are interested and willing to collectively develop an independent and technical exam instrument to benefit their students. While broad consensus among all competent education authorities should be a long term goal, implementation of the new BiH Matura should go forward once a minimum number of education systems in the country opt to participate. To develop this type of exam, Slovenian experts previously recommended that BiH establish a steering committee with officials and representatives from competent education authorities and APOSO (Slovenian Expert Group, 2011[23]). Per their proposal, the steering committee should determine the minimum number of education systems in BiH that would need to participate in order for the new Matura to be implemented. APOSO and interested administrative units could also analyse the costs and potential funding sources for the BiH Matura in order to determine the level of participation needed to ensure its feasibility. These arrangements would help guarantee that decisions about the optional BiH Matura are both representative and technically sound.

The steering committee initially proposed by the Slovenian expert group was supposed to also conduct structured consultations with a wider range of stakeholders from across the country, notably associations of school leaders and teachers, the private sector, non-governmental organisations and assessment experts (e.g. from universities) that have relevant experience in developing and administering exams. In line with this recommendation, BiH should continue inviting international specialists to share insights about standardised assessments and examinations in other countries, perhaps targeting those with experience in decentralised systems. The Slovenian expert group also recommended that BiH develop a state-level framework, which should set out regulations about the composition and specific tasks of the steering group. This OECD review team supports these recommendations, which would provide more transparent and collaborative governance arrangements for the optional BiH Matura and any future changes to the exam system.

Draw on employers and universities to generate demand for the optional BiH Matura

Engaging influential employers can generate demand for the optional BiH Matura, as the exam would assure hiring managers that candidates who have recently completed secondary school (ISCED 3) have mastered competences in key areas (e.g. mathematics, languages, etc.). Employers who spoke with the OECD review team reported that recruitment decisions are sometimes based on where students are from (i.e. based on assumptions that students from certain entities/cantons receive higher quality education and would therefore make better employees). An optional BiH Matura would help facilitate the mobility of talent across the country and allow students to graduate with a valued certification that is recognised within BiH and on par with international certificates. The exam would also support BiH's broader goals for the VET sector by strengthening available qualifications and helping to raise the learning outcomes of students who attend initial VET programmes because these schools would need to reinforce foundational literacy and numeracy competences so their students can succeed on the exam (BiH Ministry of Civil Affairs, 2021[40]).

Universities are another important driver of demand for the optional BiH Matura, and their involvement in developing a new examination will be important for encouraging the use of exam results as a core criteria

for admissions. At present, universities across BiH set their own entry requirements, which often includes a university-led entrance test and a review of students' secondary school grades (ISCED 3). Teachers have full responsibility for the latter (and therefore what educational pathways are available to their students), which creates pressure for teachers to inflate grades. University-led exams can also distract teachers and students from the school curriculum, fuel a "shadow" system of test preparation and, in countries with high rates of corruption, encourage distortive practices like bribery. Having a standardised measure to help select students into university could therefore help ensure the integrity, quality and equity of the country's higher education sector. For these reasons, parents and students themselves are also potential sources of demand for the BiH Matura. Using the Matura for university selection would not only require close consultation with the tertiary sector on the new exam, but also have implications for its design (e.g. the assessed competences and marking scale), and how individual student results are interpreted for placement decisions (see below).

Create a two-part certification system that includes an optional BiH Matura

Establishing the optional BiH Matura as a certification examination at the end of secondary education would give students, universities and employers a reliable measure to determine if an individual has developed key competences needed for success in today's world, regardless of what entity or canton they live in. Having representative and structured leadership on the steering committee and drawing on employers, universities and parents to generate demand can, over time, help build consensus for the new BiH Matura. However, creating an optional, two-part certification system could be a more practical and immediate way forward. This approach would reconcile the need for a consistent metric to certify core competences at the end of secondary school, while allowing competent education authorities to maintain their autonomy over assessment policy and graduation requirements. This two-part certification model could involve:

- **Part one**: A common standardised assessment of core competences that aligns with the CCC or core competences defined by the EU. This part of the BiH Matura would provide objective information about learning outcomes on a common scale in select competence areas (see below). All competent education authorities should engage in co-developing this part of the BiH Matura, with the goal of leveraging the experience of entities and cantons that have already developed external examinations in their jurisdictions. For example, Tuzla Canton (the only administrative unit that already administers its own external exam at the end of secondary education (ISCED 3)), could use its existing infrastructure to pilot the BiH Matura and share insights with other jurisdictions. However, participation should be optional, to avoid the perception that this is a centrally mandated exam and to guarantee the autonomy of competent education authorities. Such an arrangement would especially benefit jurisdictions that lack the means to develop their own external exams, as the associated costs and technical capacity needed to create the testing instrument would be shared. International donors could also provide financial and technical support in this area, creating further incentives for competent education authorities to engage in developing the test instrument and ultimately administer it.
- **Part two**: This part of the certification system would be developed by individual competent education authorities, creating space for them to recognise and assess learning areas that are of specific interest to their jurisdictions. Importantly, competent education authorities can choose from several student assessment policies to complement the BiH Matura. They can also determine the weights of different indicators for secondary certification, for example considering the BiH Matura results in addition to results from:
    - **An external examination at the level of administrative units**. For competent education authorities with the desire and capacity to implement their own standardised examination, these efforts should be supported while ensuring complementarity with the BiH Matura. Tuzla Canton can provide valuable experience in this area and should review its external examination

to ensure complementary with the BiH Matura. The results of this review should be published to help other entities and cantons reflect on how their own standardised exams and the BiH Matura can be jointly used as criteria for secondary certification.

- **School-based exams**. At present, several education authorities covered by this review conduct end-of-year examinations at the school level. These exams are typically prepared and administered by teachers in the school; however, there are a few exceptions and recourses for students who are unsatisfied with their final results. For example, students in RS can request to be examined by a commission appointed by their school principal instead of their direct teacher (RS, 2019[41]). In most cases however, school-based exams in BiH do not contain any externality or moderation, reducing the reliability of results. Competent education authorities that use school-based exams should therefore strengthen moderation procedures to ensure that exam results and student GPAs are more consistent and can meaningfully complement the BiH Matura.

Focus the BiH Matura on a limited selection of core competences

While curricula and learning standards vary across BiH education systems, all governments in the country aim to develop the core competences of their children. The optional BiH Matura should therefore build on this shared goal by focusing the exam on foundational competences, such as literacy and numeracy. This approach is in line with trends in OECD countries, which often require students to take mathematics and language courses throughout secondary school to ensure they achieve the basic knowledge and skills to learn and master other subject areas. Specifically, the optional BiH Matura should have two compulsory exams: language and mathematics. Other learning areas such as social sciences and humanities, or art, would be best measured by competent education authorities, through their own external or school-based examinations. Limiting the BiH Matura to the functional use of language and mathematics would help focus education systems in the country on supporting all students to master these foundational competences.

Develop a concept note to clearly define the primary purpose of the optional BiH Matura and to develop associated technical and policy documents

As a priority, the steering committee should develop a concept note for the optional BiH Matura to clearly communicate the primary purpose of the exam. In developing this concept note, the steering committee will need to take important decisions, such as:

- How will the exam reflect diversity in the provision of secondary education in BiH, which includes a large number of VET schools? For example, will the same exam be offered to all students regardless if they attend general (gymnasiums) or VET secondary programmes or will the exam be dual-level (e.g. different tests that measure either minimum expected levels or more advanced levels of performance)?
- How can BiH education systems mitigate the potentially negative risks of introducing an external state-level exam, such as narrowing local curricula or teaching to the test?
- Will results from the BiH Matura count towards admissions to higher education institutions and if so, how?

Such decisions will have implications for students, schools, and other stakeholders who need to know how the new exam will impact their various roles and responsibilities. Using the concept note to define and communicate a clear conceptual foundation for the BiH Matura can also serve as the basis for more comprehensive legal and technical documents that set out specifications on the test instrument's development, administration and use. Competent education authorities can then adapt or develop their own policies and rulebooks on how the optional BiH Matura results will be considered in relation to requirements for secondary school graduation that are set by RS entity, cantons of FBiH and Brčko District

authorities (e.g. if this will complement an external exams administered in an administrative unit and the weight of these results vis-à-vis school-based exams or grades).

Define the scoring, scaling and reporting procedures for the BiH Matura

As part of the concept of the optional BiH Matura, the steering committee will need to define clear procedures for scoring, scaling and reporting student results. If the exam is to be used for certification of secondary school and to select students into higher education, the following decisions will need to be taken:

- **The scoring scale:** The score scale should be defined so the universities can easily rank students based on their performance. This will require a somewhat long and quasi-continuous scale to allow for sufficient discrimination of student performance.
- **A threshold for certification:** The steering committee should define the minimum score needed to pass the BiH Matura and receive a certificate of completion for secondary school. This threshold should ensure that students who pass the exam have attained the "basic level" of competences, as defined by learning standards at the end of secondary education (see Recommendation 2.1.2). Testing this threshold will be important to ensure it is accessible to most students.

The optional BiH Matura would be the first locally developed standardised assessment implemented at the state-level. Given the limited familiarity with standardised tests in many parts of BiH, the steering committee should take care to avoid conflating the purpose of the Matura with other assessment functions, such as making cross-country comparisons. Since the BiH Matura will be optional, the results will not be representative of the country. Moreover, external exams are designed to provide reliable measurement of individual students at a particular moment, not measure achievement trends over time. These features make the optional BiH Matura ill-suited to support system monitoring. The steering committee should therefore provide guidance on how data from the optional BiH Matura should be used – and ways it should not be used – for other functions.

Recommendation 2.2.2. Build the technical capacity to conduct and use standardised assessments

Once the steering group has developed the concept note and supporting technical documents, the country will need to focus on building the administrative systems to implement the optional BiH Matura. This effort should include identifying the right actors to carry out the administrative tasks, such as checking the quality of test items, producing test booklets or software and ICT infrastructure, if the steering committee chooses to administer the exam via computer. Given the low levels of public trust and limited familiarity with standardised testing in BiH, the steering committee should make use of technology to administer and mark completed tests. There is also scope to more actively involve teachers in the development of the Matura, which would help them integrate the competence-based approaches to education into their classroom practices. Finally, APOSO should be tasked by competent education authorities to help them collaborate in building understanding and support for more comprehensive student assessment systems across the country.

Build sustainable administrative systems to implement the optional BiH Matura

In allocating responsibilities for the optional BiH Matura, the steering committee should draw on a range of actors to help ensure the technical integrity of the testing instrument (see Table 2.8). Given APOSO's experience implementing large-scale student assessments, the agency would be well placed to take on some of these responsibilities, especially developing the framework for tests. However, BiH could also contract international assessment companies, or draw inspiration from existing international tests to develop other subject tests, such as foreign languages, mathematics and science. Some of these tests are

already used by school networks within BiH (e.g. Cambridge English). A combined approach of international and Bosnian expertise would not only address capacity issues but also ensure the new Matura links with international standards and meets technical specifications. Teachers should also be involved in the development of the optional BiH Matura, which would help address the need for test items while also developing teachers' assessment literacy (see below).

The optional BiH Matura steering committee should also consider setting up regional exam centres to help administer and mark the new Matura, as this could reinforce the collective ownership of the exam, rather than the perception that it is a centrally mandated instrument. Albania, for example, has five regional exam centres run by permanent staff and trained teachers who administer and mark the State Matura locally; however, the Albanian regional assessment centres do report to a central authoritative body (Maghnouj et al., 2020[11]). Such a model would need to be adapted for the BiH context (e.g. regional centres could be identified on a rotating basis among participating education authorities). Quality assurance measures will also be needed to preserve consistency and integrity in the marking process across regions.

The administrative tasks associated with implementing the optional BiH Matura will have considerable resource implications. Support from international donors will likely be needed to guarantee adequate and recurrent funding to cover the human, technical and physical resources of implementing the BiH Matura. The Ministry of Civil Affairs would be well placed to co-ordinate this type of support; however financial contributions from competent education authorities will also be required. These actions will be critical to the long term sustainability and trust in the new examination system.

Table 2.8. Suggested responsibilities for key administrative tasks for the new BiH Matura

	APOSO	International assessment companies	Ministry of Civil Affairs	Entity, canton, district authorities	Teacher working groups	School of students taking the exam
Responsibility for the design of the BiH Matura				●		
Quality control	●					
Item design	●	●		●		
Test production		●				
Registration of candidates			●			●
Test administration						
Test marking and moderation		●			●	
Dissemination of results	●					
Addressing students' appeals against results	●					

Make use of technology to support the integrity of the optional BiH Matura

Technology can help address potential misconduct in standardised testing, increase transparency, as well as help protect the rights of students (e.g. by using digital codes instead of names to protect students' identity from those marking and managing the test) (Bethell and Zabulionis, 2012[42]). Considering the current integrity risks in BiH education systems (see Chapter 1), the steering committee should leverage technology to support the integrity of the optional BiH Matura. This applies to both the testing mode (i.e. the format of the exam's administration), and marking procedures. Standardised tests that are administered on computer, where students receive test materials and submit their answers digitally, reduce risks that

test materials can be “leaked” before testing occurs or be printed with errors. It also helps ensure that testing procedures are followed, whereas paper-based administration and human administrators are more prone to malpractice (e.g. giving students more time to complete test sections). The optional BiH Matura could benefit from the country’s recent experience in administering the computer format of PISA. However, since PISA is a sample-based assessment, competent education authorities would need to ensure that all students eligible to sit the BiH Matura exam have access to a computer.

The benefits of computer-based assessments also have implications for the marking of the optional BiH Matura. In particular, digital marking can reduce the time between the test’s administration and reporting of results, as well as minimise the human role in marking items (Bethell and Zabulionis, 2012[42]). Electronic marking will impact the types of question items that can be included on the exam. For example, close-format and short answer questions are more objective and easier to mark with machines, whereas open-ended questions may require human marking (e.g. to review a written essay response) and moderation procedures to ensure reliability. While including open-ended items on the exam can help measure more complex competences and higher-order skills, like those set out in the CCC, this approach has been controversial in other countries where there is low trust and exams are perceived to have high stakes. In Japan, for example, long-standing plans to introduce open-ended items to the national university entrance examination were further delayed because a pilot test revealed several marking inconsistencies (Japan Times, 2019[43]). The optional BiH Matura steering committee can build trust in the integrity of the exam by minimising the use of test items that require human marking, at least in the short term.

Engage teachers in standardised testing activities to help them integrate modern assessment principles into their practice

In order for the optional BiH Matura or other standardised assessments and exams to have a positive backwash effect on education systems in the country, teachers need to understand the underlying approach used in the testing instrument, as well as the question items, then incorporate these into their classroom practice. At present, there seems to be a general lack of understanding and engagement with available standardised assessments in BiH. For example, some stakeholders who spoke with the OECD review team mentioned that certain teachers consider external tests as challenging their professional judgements, while others expressed a need for more objective information about student achievement to better understand the curricula and learning standards. APOSO and competent education authorities will need to actively engage teachers in standardised testing activities if these instruments are to help close the gap between the intended curriculum and the taught curriculum in classrooms. In terms of examinations, which have stakes for students, it is especially important that teachers are familiar with the content and framework of the testing instrument, so their students will know what to expect and have a fair chance of success.

There are several ways to involve teachers in standardised testing, such as by writing and reviewing test items, as well as marking student responses and identifying threshold scores. Teachers will need clear instructions and training on how to develop questions that assess higher-order competences. These efforts can help create a cadre of teachers who become experienced test developers and assessment experts, who can share what they have learnt with colleagues in their school. Sarajevo Canton already involves subject teachers in the design of its Grade 9 Matura. However, in many countries, responsibilities for developing external tests and examinations in particular, is built into teachers’ formal job expectations. For example, in Norway, the marking of standardised tests is considered professional development for teachers (OECD, 2013[1]). Engaging teachers in this way can help promote a better understanding of the value of competence-based assessment, as well as a reflection about how classroom assessment practices can be adjusted to better reflect the curricula and learning standards.

Strengthen APOSO's collaboration with competent education authorities in promoting greater understanding of standardised assessment across BiH

By participating in international assessments, APOSO staff have developed valuable technical competence in implementing large-scale standardised assessments of student learning. Despite the agency's analysis and results dissemination efforts, this experience has not translated to a broader understanding of the potential benefits and risks of standardised assessments across BiH. To promote a more comprehensive student assessment framework, with a clear role for external standardised tests, several actions should take place. Primarily, BiH should continue to participate in international assessments, such as PISA, Progress in International Reading Literacy (PIRLS) and TIMSS (see Chapter 5). The analysis of standardised assessment results that APOSO produces in state-level reports should also be given a fixed time for discussion among policy makers of RS entity, cantons of FBiH and Brčko District. For example, such reports could be a regular topic for discussion at the BiH ministerial meetings and citizens' assemblies, which could feed into public debates and promote greater accountability for improvements in BiH education systems (see Chapter 5). APOSO could be invited to present their reports on findings from standardised assessments.

As datasets allow, APOSO should lead efforts to tailor reports for each competent education authority or administrative units to accommodate the needs of governments, as well as schools and teachers. Using disaggregated data in the reports can also allow actors to compare themselves to country averages and make contextual and relevant comparisons (e.g. Croatian speaking cantons compare with each other and FBiH and BiH averages etc.). International actors could also provide capacity-building for competent education authorities to conduct their own analysis and report on results. As part of these new reporting efforts, item-level analysis with information about how students across the country performed on different types of tasks could help support teachers' understanding of competence-based assessments. APOSO or university researchers would be well placed to conduct such analysis, which would be especially valuable if the reporting includes concrete examples of what students should know and be able to do across the ability range, as well as analyses of common errors that students made, with suggestions on how to improve teaching of the same content in the future.

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Notes

[1] 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.

[2] Originally the abbreviation of American College Testing.

3 Empowering teachers to improve their practice

In Bosnia and Herzegovina (BiH), competent education authorities are beginning to promote the more student-centred approaches to instruction that are increasingly common across OECD countries and can support students in developing their core competences. However, teaching practice has been slow to change, largely because there is a lack of supports and incentives to encourage the adoption of these new approaches. This chapter proposes how BiH could make use of new teacher appraisal procedures and learning opportunities to help transform teaching practices by reinforcing clear expectations, establishing feedback loops that reward performance, and supporting teachers' initial preparation and their continuous improvement.

Introduction

Effective teacher appraisal is central to the continuous improvement of schooling. By setting high standards for teaching quality, providing regular feedback to teachers and rewarding strong performance, an effective appraisal system can enable and encourage teachers to improve their practice throughout their career. In Bosnia and Herzegovina (BiH), competent education authorities are beginning to promote the more student-centred approaches to teaching and learning that are becoming increasingly common across OECD countries. However, teaching practice has been slow to change, largely because there is a lack of supports and incentive structures that would encourage the adoption of these new approaches. Resource and capacity limitations further exacerbate reform efforts.

This chapter proposes how competent education authorities could make use of new teacher appraisal procedures and learning opportunities to help transform teaching practice in BiH, notably, by reinforcing clear expectations for the role of the teacher under a more student-centred approach, establishing feedback loops that reward performance, and supporting teachers' continuous improvement. Specifically, competent education authorities should introduce new formative appraisal processes that are based on professional standards, including teacher self-evaluations and regular, low-stakes appraisals of teachers' work. Common *occupational standards for teachers in general education* already exist, and some competent education authorities are developing their own, but these are not yet widely in use. BiH should also explore how to harness digital technologies and opportunities for collaborative learning within schools to provide teachers with cost-effective, meaningful professional development opportunities. To ensure that effective teaching is recognised and rewarded, competent education authorities in BiH should also introduce revised appraisal for promotion procedures. At present, most of the administrative units in this review are not making career advancement decisions in ways that motivate excellent teaching. Finally, BiH should strengthen the accreditation and design of initial teacher education programmes, to ensure that new teachers are well prepared to meet the needs of their students.

The teaching profession in Bosnia and Herzegovina

Policies related to the teaching profession in BiH are under the responsibility of competent education authorities in Republika Srpska, the cantons in the Federation of BiH, and Brčko District. Some jurisdictions covered in this review have identified goals for improving the quality of instruction and adopting more competence-based approaches to teaching and learning, in line with the state-level Common Core Curriculum Based on Learning Outcomes. While competent education authorities see a clear need for ongoing professional learning opportunities to develop teachers' practices, they face resource constraints that often limit their ability to provide systematic training. At the same time, most of the competent education authorities are not advancing teachers along established career paths based on their performance. As a result, compared to many OECD countries, teachers in BiH have fewer opportunities and incentives to improve their teaching methods.

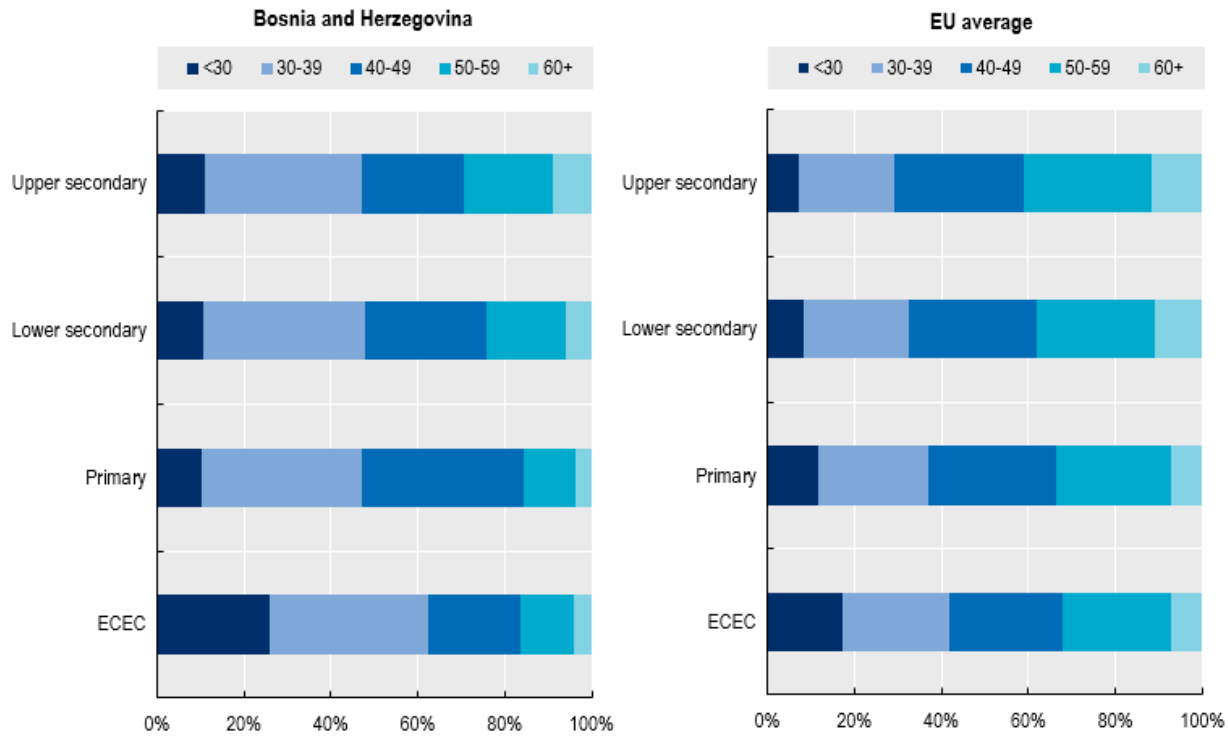
The teaching workforce in Bosnia and Herzegovina's education systems

There are inefficiencies in the supply and demand of teachers

Over the past ten years, the number of teachers in BiH has increased and its teaching population is now younger than the average across the EU (Figure 3.1). Over the same time period, the number of students has decreased, partly because of emigration and low birth rates (see Chapter 1). For example, the number of full-time equivalent teachers in the Federation of Bosnia and Herzegovina (FBiH) grew by 4% at the

primary level and 25% at the secondary level between 2009 and 2018, despite a 23% and 14% decrease in students for each respective education level (World Bank, 2019[1]). Teacher student ratios have also been below EU averages in parts of BiH, notably in many FBiH cantons at the primary level, while schools in larger urban areas sometimes operate in dual shifts to accommodate a large number of students (World Bank, 2019[1]). This indicates that there are mismatches in teacher supply and demand. However, unlike many European countries, competent education authorities in BiH do not conduct systematic forward planning exercises to manage the teaching workforce more efficiently (European Commission/EACEA/Eurydice, 2018[2]).

Figure 3.1. Teachers' age by level of education that they teach, 2019



Source: (Eurostat, 2021[3]) Classroom teachers and academic staff by education level, programme orientation, sex and age groups [educ_uoe_perp01], http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do (accessed on 15 October of 2021).

StatLink https://stat.link/d4e5gf

Certain employment and working conditions in BiH may affect teachers' confidence and make teaching more challenging

The majority of teachers in BiH work in public schools and a significant proportion are employed part-time. State-level data reveals that across BiH, 35% of primary school teachers and 29% of secondary teachers worked under part-time contracts in the school year 2020/21 (Agency of Statistics for BiH, 2021[4]). This trend appears to also follow in available disaggregated data – in Republika Srpska, for instance, 31.7% of primary school teachers and 38.7% of secondary school teachers worked under part-time contracts in the school year 2020/21 (RZS, n.d.[5]). Data from the Programme for International Student Assessment (PISA) found that, among teachers working in schools attended by 15-year-olds, some 16% of teachers have part-time contracts in BiH, which is similar to the average in Serbia (17%), but much higher than in other Western Balkan economies, including Albania (3%) and Montenegro (6%) (OECD, 2020[6]). Importantly,

this data does not distinguish between voluntary (i.e. based on teachers' preference) or involuntary (i.e. caused by the absence of full-time opportunities) part-time work, which can have important implications for staff well-being and satisfaction (OECD, 2019[7]). However, recent studies have found that many teachers in BiH contract with multiple schools in order to attain a full-time equivalent workload (World Bank, 2019[1]), suggesting that a large share of part-time contracts are involuntary.

Teachers in BiH (25%) are also more likely to work under temporary employment contracts compared to the EU average (20%) (Agency of Statistics for BiH, 2021[4]; European Commission/EACEA/Eurydice, 2021[8]). While the use of temporary contracts can help ensure flexibility in staffing, especially in decentralised education systems, balance in the use of contract types is important, in part, because employment and working conditions can affect educational quality (OECD, 2019[7]). The OECD Teaching and Learning International Survey (TALIS) has found, for instance, that part-time teachers are less likely to participate in continuous professional development and professional collaboration (OECD, 2020[9]). Moreover, working under temporary and part-time contracts is often linked to feelings of lower self-efficacy among teachers, which has a strong (negative) association with the quality of teaching practice (OECD, 2019[10]; OECD, 2020[9]). Addressing teacher employment conditions is therefore an important part of designing effective teaching and learning policies.

Teacher career structure and salary progression

Teachers in many of the administrative units covered in this review do not have opportunities for career advancement based on high performance

An increasing number of OECD countries have created differentiated teacher career paths that link higher tiers with higher salaries and additional responsibilities, such as mentoring colleagues (Santiago et al., 2013[11]). While the competent education authorities in this review have career paths for teachers, many are not promoting teachers along them in ways that motivate teachers to demonstrate high performance or develop their competences to help improve the quality of education system-wide (see Table 3.1). In three of the administrative units – the Republika Srpska (RS) entity, Sarajevo Canton and West Herzegovina Canton – rulebooks setting out requirements for career advancement expired years ago. While the RS entity and Sarajevo Canton are still promoting teachers, these promotions are not systematically linked to performance but other factors, such as years of experience. In Brčko District, promotions are not being conducted due to difficulties with finding and training external appraisers. Central Bosnia Canton, by contrast, is conducting performance-based appraisals for promotion based on procedures in a new rulebook that was released in July 2021.

Table 3.1. Teacher career structures in Bosnia and Herzegovina

Teacher career levels	Republika Srpska	Brčko District	FBiH		
			Central Bosnia Canton	Sarajevo Canton	West Herzegovina Canton
Level 1	Teacher	Teacher	Teacher	Teacher	Teacher
Level 2	Mentor	Mentor	Mentor	Mentor	Mentor
Level 3	Counsellor	Advisor	Advisor	Counsellor	Advisor
Level 4	Senior Counsellor		Senior Counsellor	Senior Counsellor	
Status of career advancement procedures					
Currently promoting teachers?	Yes, based on attaining higher education degrees	No	Yes, based on assessment of direct educational work, extra-curricular professional work, professional development and years of work experience	Yes, based on years of work experience	No

Source: Author.

Teachers in BiH are well-compensated compared to the private sector, but growth in earnings over time is low

There is significant variation in teachers' salaries across competent education authorities in BiH, partly because collective agreements are negotiated locally. However, teacher salaries generally compare favourably to private sector jobs within the country. The average teachers' net monthly salary across a sample of five cantons and the RS entity, for instance, was around 25% higher than the average private sector salary in 2018 (World Bank, 2019[1]). While the potential of earning relatively high salaries may help encourage young people to join the profession, teachers in BiH have limited opportunities to increase their salaries over time. Among lower secondary teachers (primary education or ISCED 2 in BiH), those at the top of the salary scale in BiH received only 20% above the starting salary in 2018, compared to an average increase of 66% across PISA-participating countries (OECD, 2020[12]; European Commission/EACEA/Eurydice, 2020[13]). This flat salary structure can be less rewarding and reduce incentives for teachers to develop their practice. At the same time, many competent education authorities offer allowances for teachers who take on additional responsibilities and work in specific conditions (e.g. remote areas, combined grades) (European Commission/EACEA/Eurydice, 2020[13]). Performance-related bonus schemes for teachers are also common in BiH. However, these opportunities are not typically linked to clear definitions of performance nor systematic appraisal procedures (World Bank, 2019[1]).

Initial teacher education

There is a low bar for entry to initial teacher education

Eight public universities (six located across the FBiH entity and two in the RS entity), as well as a growing number of private higher education institutions, offer initial teacher education (ITE) in different faculties or academies. As in many EU countries, BiH offers ITE programmes that lead to either a bachelor's or master's degree and are either concurrent (i.e. three or four years of study that lead to a degree in teaching) or consecutive (i.e. one to two years of study after obtaining a degree in a different domain) (European Commission/EACEA/Eurydice, 2021[8]). Competent education authorities have their own enrolment policies and work with providers in their jurisdiction to determine the maximum number of study places available in ITE programmes. Applicants must usually fulfil a minimum grade point average at the secondary level, including minimum grades in specific subjects, and are then selected based on a ranking exercise. However, most ITE providers do not set a high minimum grade point average, and the bar for entry has lowered over recent years, as the number of applicants has declined. The low bar for entry into

ITE, in addition to a general decline in interest in joining the profession, may have a negative impact on the quality of teaching in the future.

Initial teacher education programmes do not provide sufficient preparation to teacher candidates

Initial teacher preparation in BiH differs significantly across programmes because each provider determines their own curriculum (USAID, 2018[14]). However, research suggests that most ITE programmes do not sufficiently cover pedagogy, psychology and didactics in their curricula, and often teach outdated teaching methods (CPU, 2015, in (USAID, 2018[14]). The duration of professional training (i.e. theoretical and practical preparation for teaching) within BiH programmes is short by European standards: 30European Credit Transfer and Accumulation System (ECTS) credits compared to an EU average of 60 ECTS for lower secondary teaching programmes (primary education or ISCED 2 in BiH) in 2019/20 (European Commission/EACEA/Eurydice, 2021[8]). Positively, most ITE programmes in BiH include a practicum, which is an essential part of teacher preparation in OECD and European countries. However, unlike these countries, competent education authorities in BiH do not always regulate a minimum practicum length (European Commission/EACEA/Eurydice, 2021[8]). Such variety in practicum duration risks leaving some teachers unprepared to work in the classroom. Furthermore, online delivery of ITE programmes during the COVID-19 pandemic temporarily halted practicum placements in BiH, raising concerns about the quality of the initial education of teachers during that period.

Quality assurance measures exist but they are not robust or specific to teacher education

The Agency for Development of Higher Education and Quality Assurance of Bosnia and Herzegovina (HEA), a state-level body, has been responsible for making recommendations to competent education authorities regarding the accreditation of public and private tertiary institutions, as well as their individual programmes (upon request) since 2013. Cantons and entities have authority over the procedures and decisions on the accreditation and licensing of higher education institutions. To date, the state-level HEA recommended the accreditation of thirteen institutions in BiH, including all eight of the public ITE providers. However, few institutions have sought accreditation for their specific programmes, and none has accredited ITE programmes. Unlike an increasing number of OECD countries, at the state level, BiH uses general criteria to review individual tertiary programmes for accreditation, and therefore does not have criteria specific to teacher preparation. Without specific criteria, it can be hard to ensure that ITE programmes sufficiently prepare tertiary students to join the teaching profession (OECD, 2020[15]). There are also concerns around the integrity of BiH's higher education sector; especially the quality of private providers and their initial teacher education programmes (see Chapter 1).

Teachers in vocational education and training lack relevant learning opportunities

Vocational education and training (VET) teachers comprise a significant proportion of the teaching population in BiH, which is unsurprising given the high number of upper secondary students (ISCED 3 in BiH) who attend technical and vocational schools (77% as of 2019) (OECD, 2021[16]). There are indications that VET teachers' initial preparation and continuous professional learning are not sufficient. VET teachers who have not previously studied to become teachers are generally required to complete tertiary courses in pedagogy, psychology, didactics and methodology, as well as complete an internship in a school, and pass the professional exam. A small 2015 study found that some VET teachers had only taken the professional exam (USAID, 2018[14]). Furthermore, few VET teachers in BiH have access to continuous professional development opportunities, primarily because pedagogical institutes and education ministries lack staff with specialised expertise in pedagogy for VET-related subjects (ibid). It will be difficult for BiH to improve teaching quality in VET schools if these teachers do not receive sufficient preparation and ongoing training.

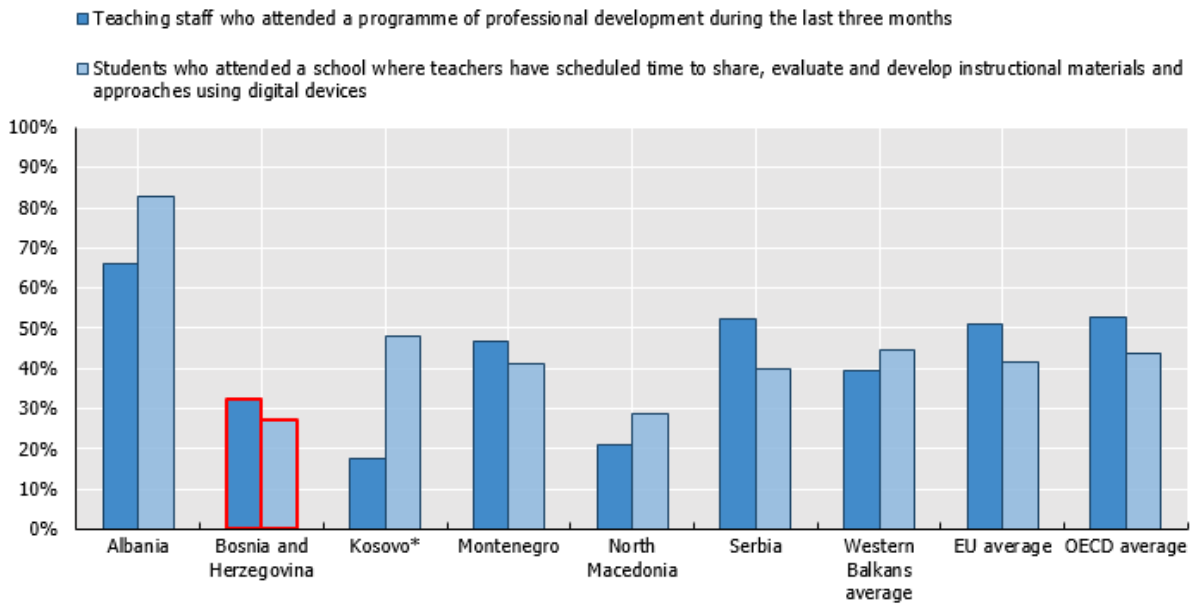
Teachers' continuous professional development

Continuous professional development is under-resourced and participation rates are low

Similar to many EU countries, competent education authorities in BiH have made ongoing training part of a teacher's professional duty (European Commission/EACEA/Eurydice, 2021[8]). Competent education authorities in BiH set their own requirements for participation in continuous professional development. Several FBiH cantons mandate a minimum of 12 hours of continuous professional development for teachers per year, which is similar to or greater than requirements in neighbouring countries. For example, teachers in Albania must complete six hours of professional development per year, while teachers in Montenegro must complete 24 hours within a five-year cycle (i.e. roughly five hours per year) (European Commission/EACEA/Eurydice, 2021[8]). Despite requirements, participation rates in continuous professional development have generally been low in BiH. For example, PISA 2018 results indicate that on average, the country's lower secondary teachers (primary education or ISCED 2 in BiH) participated in less training than teachers in OECD and other Western Balkan economies (OECD, 2019[17]) (see Figure 3.2).

Teachers are reportedly not motivated to engage in continuous professional development in BiH because available training lacks relevance to their work, is often of low quality and has limited benefits for career progression. BiH's ability to address these concerns is hindered by resource constraints. Within each canton or entity, the institution responsible for organising or delivering professional development often lacks the resources to deliver quality, relevant training (USAID, 2018[14]). At the country-level, the Agency for Pre-school, Primary and Secondary Education (APOSO) provides e-learning opportunities and some resources on instruction for teachers, but this body does not have a mandate to train teachers, and it also lacks funding. These resource limitations mean that BiH often relies on international and domestic development partners to deliver professional development for teachers. However, this model raises efficiency and sustainability concerns and does not guarantee that teachers' learning needs will be addressed, especially in priority areas such as inclusive education and using information and communication technologies (ICT) in the classroom (Čelebičić and Jovanović, 2021[18]).

Figure 3.2. Participation in professional development, 2018



Source: Adapted from (OECD, 2020[15]), *Education in the Western Balkans: Findings from PISA*, https://doi.org/10.1787/764847ff-en.

StatLink https://stat.link/ru3gn9

Collaborative, school-based professional learning does not happen on a regular basis in most administrative units in BiH

One-off seminars or lectures are common forms of training for teachers in BiH. However, research suggests that collaborative, job-embedded learning is a more effective way to improve teachers' competence (Schleicher, 2011[19]). This type of school-based professional learning is not prevalent in most of the jurisdictions covered in this review. While teacher groups exist in some or all schools, depending on the administrative unit, expectations for collaborative work and learning are often minimal or non-existent. For example, in some administrative units , teachers are only required to conduct one demonstration lesson per year and they do not engage in ongoing learning activities with their colleagues. An exception is Central Bosnia Canton, where teachers are obligated to devote one hour of a 40-hour work week to working with professional bodies within their school, such as class councils (MESCS of the Central Bosnia Canton, 2002[20]; MESCS of the Central Bosnia Canton, 2002[21]). These school-based learning activities reportedly include observing classes, organising workshops, and providing support to colleagues.

Each of the five competent education authorities covered in this review has established pedagogues (and, in some cases, other expert associates, such as psychologists, social workers, or speech therapists) who work in schools to support teachers, parents and students in raising educational outcomes. However, their work does not always align with their defined responsibilities. For example, school staff in BiH reported to the review team that a pedagogue's time is often spent on administrative duties, such as filling out reports, and diverted away from helping to improve teaching and learning.

Teacher appraisal in Bosnia and Herzegovina

Competent education authorities in this review have developed appraisal procedures that apply to both candidates seeking entry into the teaching profession as well as qualified teachers already employed in schools. However, at present, most entity, canton and district authorities do not carry out appraisal for

qualified teachers in a way that supports and motivates their professional development. Specifically, many education systems in BiH have stopped implementing teacher appraisals for career advancement while they develop new appraisal procedures or deal with challenges that are impeding the implementation of existing procedures. Most competent education authorities also lack procedures for low-stakes appraisal, which is meant to give teachers regular and formative feedback to improve their practice rather than being linked to career advancement.

Table 3.2. Teacher appraisal in Bosnia and Herzegovina

Type of appraisal	Reference standards	Body responsible	Guideline documents	Process	Frequency	Use
Appraisal for probation of teacher candidates and initial qualification	Initial teacher education					
	None	Higher education institutions	Legislation in different administrative units	Students need to complete a teaching degree at the bachelor's level that may be between 180 to 240 ECTS depending on the administrative unit	Once, at the end of higher education studies	For the relevant degree and to apply for employment and an internship
	Internship					
	None	Mentor and Teachers' Council	Varies	After a certain number of hours of observation, the mentor reports on the implementation of the internship, and the Teachers' Council decides whether it has been successfully completed.	Once, at the end of the internship	For completion of internship and approval to take the professional exam
	Professional examination					
	None	A commission commonly including representatives of the ministry, the relevant university faculty, and a teacher who may be the intern's mentor	Ordinances or legislation on taking the professional exam in different administrative units	Varies. A practical component (i.e. delivery of a lesson) and an oral component and, in some cases, a written component	Once, after successful completion of the internship	For qualification as a teacher
Regular appraisal *Only in Brčko District	Four legislated criteria	Principal	Law on Education in Primary and Secondary Schools in Brčko District	Principal supervises and evaluates the success of teachers' work	Annually	For personal records
Appraisal for promotion *Only being conducted for career advancement in Central Bosnia Canton as of	Varies depending on the administrative unit.	Varies. A school-based commission, including the principal (Sarajevo and Central Bosnia cantons); or the principal and a pedagogical	Ordinances or legislation in each administrative unit	Commonly based on: personal files; classroom observations	Annually (Republika Srpska and Brčko District); or once every two years (Sarajevo and Central Bosnia cantons)	To inform career progression decisions

Type of appraisal	Reference standards	Body responsible	Guideline documents	Process	Frequency	Use
2021*		institute advisor (Republika Srpska); or an external evaluator (Brčko District)				
Appraisal for reward	None	Varies depending on the reward (e.g. competent education; principal)	Varies (e.g. collective agreements; ordinances; school regulations)	Varies. Applications (Saint Sava Award in Republika Srpska) or other	Annually	To provide financial bonuses to teachers and/or recognise outstanding results or contributions

Source: Authors, from (BiH, 2021[22]), Country Background Report for the OECD Review of Evaluation and Assessment in Education: Bosnia and Herzegovina, Unpublished.

Teacher standards are not widely in use

The five competent education authorities covered in this review are not yet making use of teacher standards to set out clear expectations for the role of teachers. Commonly in OECD countries, standards are used to shape teachers' development by informing the design and accreditation of teacher training programmes, shaping requirements for certification, determining criteria for appraisal and self-evaluation, and defining a performance-based career path. In 2016/17, BiH released common *Occupational standards for teachers in general education* (hereafter the occupational standards) as part of an EU-funded project, *Development of a Qualifications Framework for General Education*. The drafting team included representatives of state-level bodies, as well as all cantons, entities and Brčko District (British Council, WYG and GIZ, 2017[23]). The standards were based on EU best practices and covered domains that research recognises as important for quality teaching, including planning and programming; learning and teaching; monitoring and assessment; creating an environment conducive to learning; co-operating with family and community; professional development; and participation in the work and development of the school and education system (ibid). The standards encouraged teachers to work towards implementing the Common Core Curriculum Based on Learning Outcomes (see Chapter 1), which describes the student-centred approaches that teachers should use and competences they should help their students develop (see Table 3.3).

Despite these efforts, the common occupational standards are not widely in use across BiH. Previously, RS, Brčko District and Sarajevo Canton used them as criteria for promotion appraisal. However, they have since discontinued this practice. Some competent education authorities recently drafted their own teacher standards or announced plans to use the common occupational standards. For example, West Herzegovina Canton is developing a rulebook on the evaluation of the work of teachers based on these standards. However, education authorities also reported that teacher standards could not be implemented locally until they amend existing legislation or develop new rulebooks, which can take time. Without clear and operational teacher standards, competent education authorities are missing a key tool to raise teaching quality in BiH and help steer innovation in teaching practices.

Table 3.3. Excerpt from the proposed Occupational standards for teachers in general education, 2016/17

2. Learning and teaching	
Key tasks	Necessary competences
Process management learning and teaching Selection and application of methods and teaching strategies Individualisation and differentiation Using different sources of knowledge and teaching and learning resources Selection and application of social forms of work	• Connects the content and the teaching process with the previous knowledge, skills and experience of students, encouraging curiosity and motivation to learn • Creates a stimulating environment for work, using available time efficiently and adjusting work dynamics for student opportunities • Selects, uses and adapts different methods and teaching strategies that ensure the active involvement of students in the learning process, and the development of creativity, critical thinking and problem solving • Encourages students' independence and taking responsibility for their own learning and time management • Allows students to understand the meaning and purpose of learning and how it applies to real life situations • Teaching methods, forms and contents, as well as work dynamics are differentiated for the individual opportunities, needs and interests of students with which he works (including students with special educational needs, gifted and talented students, etc.) • Selects, adapts and efficiently uses information-communication technologies, materials and resources for learning and teaching, and different sources of knowledge and information • Applies various social forms of work, encourages co-operative learning and co-operation among students

Source: (British Council, WYG and GIZ, 2017[23]), *Occupational standard teacher in primary and secondary education,* http://www.poljskolabl.rs.ba/wp-content/uploads/2017/04/docs_2%20Standard%20zanimanja_nastavnik.pdf (accessed on 29 June 2021).

Requirements to become a teacher are consistent with other European countries but quality assurance measures lack rigour

Competent education authorities in BiH determine the requirements for initial teacher qualification. These include completion of a teaching degree at undergraduate level. This is followed by an internship for newly employed teachers that lasts either six months (e.g. in Brčko District) or more commonly, one year (in RS and the three cantons covered in this review). Teacher candidates must then pass a professional examination. These requirements are broadly similar to those found across the OECD and the EU. However, the requirements for qualification across entities and cantons in BiH do not provide the consistent quality assurance that they do in many other countries. For example, competent education authorities do not base their requirements on teacher standards to help ensure that prospective teachers have the competences needed at the start of their careers, including knowledge of modern teaching approaches. The internship also lacks rigour and clarity. Specifically, the mentors of trainee teachers lack clear guidance for their role (World Bank, 2021[24]). As a result, novice teachers in BiH may not be adequately supported at the start of their careers.

Recruitment procedures are not meritocratic and structured probation appraisals are not mandatory

School commissions commonly conduct teacher recruitment processes in BiH, sometimes with the involvement of the competent education authority and local government, as in Brčko District. Recruitment criteria are set out in ordinances, and, in practice, this process is not always based on factors related to teaching competence. For example, in Sarajevo Canton, candidates receive points for the number of years spent unemployed, which may give them a hiring advantage over those with more teaching experience (World Bank, 2019[1]). In addition, recruitment procedures do not support teacher mobility, which may become more of an issue should particular regions face a higher demand for teachers. In the FBiH, for instance, certain cantons require more credits than others for the same teaching position, with requirements ranging from 180, 240 or 320 ECTS, depending on where the position is located (World

Bank, 2021[24]). At the same time, competent education authorities do not have mandatory, structured probation appraisals for fully qualified teachers, which could help to ensure that only the most competent teachers are employed in schools. This lack of appraisal is particularly problematic given integrity concerns in the education sector – in particular, that procedures to recruit school staff may be vulnerable to corrupt practices (Chapter 1).

There are no regular teacher appraisal processes for formative purposes

Historically, competent education authorities in BiH used the regular appraisal of teachers' work for career advancement. By contrast, OECD countries use regular appraisal formatively, to provide essential feedback on the competences teachers have obtained and those they need to further develop (OECD, 2013[25]). Such practices can help teachers reflect on their teaching and encourage them to take ownership of their professional development. Importantly, regular appraisals do not typically have high stakes for a teacher's career. Brčko District is the only competent education authority in this review that still has an appraisal process in place for purposes other than career advancement. However, this process is primarily administrative rather than formative, and it does not take place regularly. Principals in Brčko District are required to supervise and evaluate teachers annually against four criteria, but legislation does not set out how they should conduct the process or use the results, other than for teachers' personal records. Some competent education authorities, like West Herzegovina Canton, also plan to set out requirements for teachers to conduct self-evaluations, which have formative potential.

Appraisal for promotion is not being conducted for career advancement

In the past, the competent education authorities covered in this review conducted teacher appraisals to determine promotions annually or once every two years as set out in their respective rulebooks or legislation. Central Bosnia Canton is the only competent education authority that is conducting appraisals for promotion based on teachers' performance, including evidence of their direct educational work with students, extra-curricular professional work, and professional development. Past appraisal for promotion processes in some parts of BiH appear to have lacked the reliability and objectivity needed to ensure credible judgements of teachers' performance. This is particularly important given the high stakes nature of these appraisals for teachers' careers and broader integrity concerns within the BiH education sector (see Chapter 1). For instance, while some competent education authorities used the common *Occupational standards for teachers in general education* to evaluate teachers, others used appraisal criteria that were narrower, meaning that they may not have appraised teachers against all relevant competence areas. Furthermore, in some parts of BiH, appraisers were not external to the school. OECD research recommends some element of externality to ensure the objectivity of promotion decisions (OECD, 2013[25]). Positively, appraisers typically used multiple sources of evidence for these appraisals, including classroom observations and personal files. However, since the latter primarily contained administrative information or professional development certificates, they may not have been a sufficiently robust source of evidence to evaluate the quality of teachers' practices or their impact on students and colleagues. In many cases, this process may also have encouraged a focus on top-performing students rather than the success of all learners, by awarding more points or promoting teachers more quickly if they had students that did well in competitions.

Some rewards schemes for teachers are substantial, but they do not necessarily support high performance

Performance-based financial rewards for teachers exist at the school or canton/entity level in some of the administrative units in this review. For example, in Sarajevo Canton, the school board can decide to increase a teacher's salary by up to 20% twice a year (World Bank, 2019[1]). At the same time, collective agreements or school-level regulations do not clearly define what good performance means in the context

of these rewards (ibid). As a result, these rewards, as currently designed, may not consistently encourage high performance or the development of important teaching competences. In Republika Srpska, the Minister of Education and Culture offers the Saint Sava Award for excellence in teaching based on a public call for nominations. To be eligible for this award, teachers must have improved the quality of work in their school (e.g. teaching children with special education needs), contributed to teaching through research or have students with outstanding results (e.g. by winning academic competitions).

Policy issues

The competent education authorities in this review, as well as other stakeholders who are active in BiH's education sector, are making efforts to improve teaching practices and student learning. Some plan to use teacher standards to set out clear expectations for teachers' role. All competent education authorities also organise or deliver some form of training to teachers, often through their pedagogical institutes or in partnership with international NGOs. However, several challenges impede these efforts, notably resource constraints. To overcome these challenges, competent education authorities will need to become more efficient by leveraging the skills of their existing teaching populations. They should also be able to opt into support from state-level bodies or co-operate with other administrative units to make efficiency gains that will benefit teachers and students.

Competent education authorities should use teacher appraisal processes as a key developmental tool in their efforts to improve teachers' practices. As a priority, teacher standards should serve as the basis for new developmental appraisal processes, such as teacher self-evaluation and regular appraisals that lead to feedback on teaching practices. Authorities should also use standards to increase the relevance of initial teacher education programmes and continuous professional development opportunities, which should form a continuum of meaningful learning experiences for teachers. To motivate teachers throughout their careers, competent education authorities should introduce new appraisals for promotion procedures and other measures, like scholarships for in-service teachers to continue their studies, to incentivise and reward excellent teaching.

Policy issue 3.1. Using standards to develop key teaching competences

Strengthening the quality of teachers' work and modernising teaching practices is a key challenge for BiH. While many teachers in the country are dedicated to their profession, traditional approaches to teaching have continued to outweigh the more student-centred approaches associated with higher learning outcomes. For example, according to PISA 2018, 15-year-old students in BiH reported that their teachers were lecturing to students at higher rates than the OECD average (OECD, 2020[15]). By contrast, student-centred approaches like cognitive activation strategies (e.g. presenting problems for which there is no immediately obvious solution and helping students learn from their mistakes) are associated with higher mathematics scores in PISA (OECD, 2018[26]). Such strategies can enable teachers to identify and address the individual learning needs of their students, while also encouraging students' self-efficacy. At the same time, stakeholders in BiH reported issues with poor conduct among certain teachers, and a lack of mechanisms to address it. Data from PISA 2018, for instance, found that principals of schools with 15-year-old students in BiH were more likely than their counterparts across OECD and EU countries to report that teacher behaviours, such as absenteeism, not being well prepared for classes, not meeting individual student needs and resisting change, hindered student learning (OECD, 2020[15]).

Changing teaching practices is challenging. It requires the consistent reinforcement of expectations for teachers' roles, as well as relevant support. Many OECD countries set out these expectations in teacher standards, which provide a reference for teachers to reflect on their practice, identify professional development goals and serve as criteria for regular performance appraisals. Without these clear

expectations and investments in relevant professional development opportunities, BiH will likely struggle to improve teaching and learning. To be effective, policies to improve teaching practices will need to be appropriate for BiH's decentralised education system and feasible given funding constraints.

Recommendation 3.1.1. Introduce standards-based appraisals to help teachers develop their practice

Each of the competent education authorities in this review helped to develop the *Occupational standards for teachers in general education* in 2016-17 and some have made efforts to implement these standards locally or draft their own set of standards. Despite this, the majority of education systems in this review do not yet have teacher standards in place, and in jurisdictions where standards do exist, they are not yet being used. Competent education authorities should proceed with adopting teacher standards to set out clear expectations for a teacher's role. These standards should serve as the basis for teacher appraisal processes, such as self-evaluation and regular formative appraisal. This is important not only to ensure that appraisals are consistent, but also to focus appraisals on helping teachers develop their competences and orient their practices towards more student-centred approaches. While competent education authorities would be responsible for their own standards, APOSO could support their efforts, given its key role in promoting educational quality across BiH. This might require BiH to adjust APOSO's mandate, as well as provide the agency with sufficient financial and human resources to carry out this task, alongside others recommended in this report (see, for example, Chapter 5).

Encourage all competent education authorities to adopt and make use of teacher standards

As a first step, APOSO, in partnership with pedagogical institutes, should create an easily accessible online platform to house electronic copies of the *Occupational standards for teachers in general education* and the standards developed by different competent education authorities or pedagogical institutes. This would help to foster discussion among pedagogical institutes and ministries of education, while encouraging those who have not yet developed standards to do so. All competent education authorities that do not yet have teacher standards should either adopt the occupational standards (with any modifications they deem appropriate) or use these as guidance to develop their own local standards. The occupational standards provide a good model for competent education authorities because they cover critical domains of a teacher's role, including teaching knowledge, pedagogical practices, and professional responsibilities and values (Centre of Study for Policies and Practices in Education (CEPPE), Chile, 2013[27]). They also describe how teachers can support students to achieve the expectations set out in the Common Core Curriculum Based on Learning Outcomes, which has been a challenge to implement in some parts of BiH (see Chapter 2). Competent education authorities should make any necessary legislative amendments or develop rulebooks that set out how teacher standards will be implemented in their entity, canton or district (e.g. as part of developmental appraisal processes).

Work with the teaching profession on the teacher standards

Competent education authorities should engage practicing teachers and their unions in efforts to adopt or revise teacher standards. This is essential to ensuring that teachers "own" the standards and make use of them to inform their teaching practices (OECD, 2013[25]). Furthermore, unions have such a strong voice in some administrative units that, without their support, it is possible that new standards will not be adopted. Competent education authorities could invite teachers and union representatives to participate on teams tasked with determining whether to adopt the occupational standards (with or without modifications) or develop their own standards, as well as engage in consultations about how the standards will be used. Competent education authorities should also consult with stakeholders who are responsible for teacher development (e.g. pedagogical institutes, ITE providers, school principals) on the design and implementation of the teacher standards. This will gather a range of perspectives and help build capacity

for rollout. To save on time and costs, and in light of any remaining restrictions due to the COVID-19 pandemic, administrative units could conduct online consultations with teachers and stakeholders using webinars and social media.

Use future reviews and revisions of teacher standards as a lever to further improve teaching quality

In the medium- to long-term, competent education authorities should review and revise their occupational standards for teachers to make them a stronger lever to improve teaching quality. APOSO, possibly working in conjunction with BiH's Conference of Education Ministers, could co-ordinate the review and revision of common occupational standards, if these are adopted by different administrative units. For example, the recommendations made in Chapter 5 for BiH to develop a state-level framework for education goals could inform a review of both teaching and learning standards to ensure alignment with the country's priorities. Other revisions could better align the standards with teacher career structures in BiH. While the existing occupational standards present a general set of knowledge and skills for all teachers, they do not describe competences teachers should develop to reach higher career levels. Having differentiated standards would help motivate teachers to update their practices throughout their career, especially if used as part of a new performance-based appraisal for career advancement (see Recommendation 3.2.1). In so doing, BiH could look to countries like Australia, which has well-established differentiated teacher standards, or North Macedonia, which recently introduced them (see Box 3.4). In addition to differentiating standards for in-service teachers, BiH could also introduce "graduate" or "new teacher" competences to support improvements to the accreditation and design of ITE programmes (see Policy issue 3.3).

Introduce self-evaluation to help teachers identify and pursue their own learning goals

In the short term, competent education authorities should encourage teachers in their jurisdiction to carry out regular self-evaluations of their practice. Their purpose will be to help teachers reflect on their strengths and weaknesses and use results to inform development-focused discussions within school-based teams (see below), with their school pedagogue or with their principal. Such practices already happen in some BiH schools, but these often rely on the initiative of individual teachers and principals. As a result, self-evaluation is not systematic and teachers do not receive support to conduct this exercise, representing a missed opportunity to develop teachers' sense of self-efficacy and empower them to take ownership of their professional development. Schools in BiH can immediately deploy self-evaluation, while waiting for more formal institutions and policies to support regular appraisal and incentivise professional development (e.g. differentiated standards aligned with a performance-based career structure).

Since APOSO already provides some online resources for teachers as part of the ERASMUS+ programme, the agency could be tasked with developing web-based tools to guide teacher self-evaluation, in co-operation with pedagogical institutes. For example, the General Teaching Council for Scotland presents self-evaluation questions that encourage teachers to think about their practices and set professional learning goals (see Box 3.1). This type of tool might be particularly helpful in BiH, since its questions need not reference specific teacher standards, which may not be the same in each of the country's education systems. Importantly, the results of self-evaluations should not inform summative appraisals (e.g. appraisals for promotion or rewards) because teachers would have little incentive to be honest about their professional learning needs if this information could be used against them (Santiago et al., 2013[11]).

Box 3.1. Teacher self-evaluation tools in Scotland

The General Teaching Council for Scotland (GTCS) dedicates a portion of its website to teacher self-evaluation. It contains information about what self-evaluation is and why it is important, and self-evaluation tools, including a list of reflective questions organised into five areas:

1. Using the standards to plan and support professional learning and development – e.g. What aspects of the standards do I find most challenging? Why? How could these challenges be addressed?
2. Assessing your professional values – e.g. How are the professional values reflected in my professional actions?
3. Assessing your development needs – e.g. What development needs do I have concerning enhancing my subject/content knowledge and pedagogical expertise? How do I plan my professional learning to enable me to develop in these areas? What support would I require to meet those needs?
4. Reflecting on your professional learning – e.g. As a result of my professional learning, how has my practice developed to improve outcomes for all learners? How do I know? What evidence do I have? What does this tell me about my practice?
5. Developing accomplishment and expertise – e.g. As I develop accomplishment and expertise in a specific area, how do I share this with colleagues and lead developments within and beyond the school community?

Other self-evaluation tools are more specific to the GTCS teacher standards. For example, self-evaluation wheels ask teachers to gauge their performance against different *Standards for Career-Long Professional Learning*, using a scale of 0 (not confident/lots of areas to develop or work on) to 10 (feel very confident/accomplished in this area). They also ask teachers to think about why they have given themselves this rating and consider what the next steps in their development should be.

Source: (General Teaching Council for Scotland, n.d.[28]), *Self-evaluation*, https://www.gtcs.org.uk/professional-standards/self-evaluation/self-evaluation.aspx (accessed on 27 July 2021)

Mandate the regular, standards-based appraisal of teachers' work for development purposes

Competent education authorities should build on the practice of self-evaluation by establishing a regular, standards-based process to appraise teachers' work. In BiH, the historically summative nature of teacher performance appraisals has not supported an authentic assessment of teachers' strengths and weaknesses for development purposes. New performance appraisal processes should therefore be explicitly formative to help distinguish them from the previous teacher appraisals. Competent education authorities will need to consult with teachers' unions and other key stakeholders about what this regular appraisal process should look like in their respective administrative units. The new appraisals should also take place annually, as they do in many OECD and partner economies, to ensure that teachers receive regular feedback on their performance (OECD, 2015[29]). To support the formative nature of teacher appraisals, competent education authorities should consider including the following elements, which are common in OECD countries and not costly to implement:

- **Base appraisal criteria on professional teacher standards**. Teacher standards are an essential part of an effective teacher appraisal system because they provide a common reference point for

both teachers and appraisers and establish clear expectations for performance and development (ibid). When possible, these standards should also help shape teacher self-evaluation.

- **Structure appraisals around regular dialogue and constructive feedback.** Regular appraisal processes should include discussions between the teacher and their appraiser throughout the school year. These should address things like teachers' self-evaluation results and their professional development goals and learning needs.
- **Use appraisers that are internal to the school.** When teachers are familiar with the person conducting the appraisal process, this helps create a more informal setting and encourages open dialogue and feedback (OECD, 2013[25]). Competent education authorities should therefore use principals, pedagogues or a member of the school leadership team to conduct regular formative appraisals of teachers, rather than use appraisers who are external to the school.
- **Draw on a range of authentic and accurate evidence.** Standards-based appraisal processes should draw on a range of information, including evidence from classroom observations, structured conversations, self-evaluations and portfolios. The latter should include evidence of teaching and its impact on student learning (e.g. lesson plans, teaching materials, samples of student work and assessments) and reflections on teaching practices and any challenges in relation to meeting teacher standards (Santiago and Benavides, 2009[30]; Goe, Biggers and Croft, 2012[31]).
- **Establish a standard response to underperformance.** Appraisal processes need to include clear and standardised responses if they are to address low performance effectively. These responses could include developing an improvement plan that involves coaching or mentorship, followed by additional follow-up appraisals to monitor progress and eventually dismissal if a teacher consistently fails to improve their performance.

Develop guidance and resources to support implementation of the regular appraisal process

Schools will benefit from guidance on how to implement a new formative appraisal process that is meaningful for teachers. Competent education authorities should develop actionable guidelines that set out the purpose of the process and the steps involved. Additional guidance and resources would also help appraisers identify teachers' strengths and weaknesses and direct them to relevant professional development options. For instance, competent education authorities could create a template for appraisers to benchmark teachers' performance against each of the teacher standards and provide an explanation of their judgements. They could also develop a template for a written appraisal report designed to provide teachers with formative feedback. Alongside these resources, an online platform (see Recommendation 3.1.2) could provide resources that should be helpful to both appraisers and teachers, notably videos that model good teaching practices. Furthermore, some of the resources APOSO could develop to support implementation of new appraisal for promotion procedures would also be relevant to regular formative appraisals, such as a set of indicators and performance levels relating to teacher standards (see Recommendation 3.2.2). Principals and other school staff who will be responsible for conducting regular formative appraisals may also benefit from training on how to conduct classroom observations and provide constructive feedback on teachers' performance. Chapter 4 recommends a new mandatory initial training programme for principals, which should cover how to conduct teacher appraisals for formative purposes.

Recommendation 3.1.2. Harness digital technology and promote collaboration between teachers to translate teacher standards into practice

Competent education authorities in BiH commonly help teachers improve their practice by regularly gathering information on their learning needs and organising annual workshops. While these efforts are positive, continuous professional development across the country is often insufficient to improve teaching practices to support student learning in meaningful ways. Moreover, pedagogical institutes and ministries of education frequently lack sufficient resources to provide training, and annual workshops are not always

relevant. For example, some teachers told the OECD review team that training workshops usually relay information like statistics from the field, rather than provide practical professional learning opportunities. Donor agencies have stepped in to deliver teacher training in BiH; however, these actors do not have the mandate or capacity to provide long-term systemic support. There is also evidence that access to training is uneven across the country, which could further exacerbate inequities in student outcomes. For example, PISA 2018 data showed that roughly 20% more teachers from socio-economically advantaged schools had engaged in continuous professional opportunities over the past three months than those from disadvantaged schools, compared to a Western Balkan average of just under 10% (OECD, 2020[15]).

To address these challenges, BiH should make the delivery of continuous professional development for teachers more systematic, efficient and coherent. To start, resources and initiatives should be oriented around professional teacher standards. This applies to regular training seminars but also electronic resources that should be easily accessible on the websites of education authorities at the state and/or local level. Research shows that teachers are more likely to engage in their own development when they can access a range of materials and tools, because they can select the resources that are most relevant to their specific needs and contexts and deploy them for job-embedded peer learning (OECD, 2019[10]). In-school professional learning activities are also less costly than more traditional training methods that take place outside of the school, and thus can reach more teachers at lower cost (ibid).

Develop an online platform that presents standards-based technical resources and e-learning opportunities to support effective teaching

BiH should use the *Occupational standards for teachers in general education* to design new digital resources and e-learning opportunities and post them on an online learning platform that all teachers can easily access. The main goal of such a platform would be to provide as many teachers as possible with relevant teaching resources at relatively low cost. The Conference of Ministers of Education could discuss how interested competent education authorities could work together to develop the platform and related resources. For example, APOSO might play a co-ordinating role since the agency's website currently allows teachers to use to exchange training material related to the Common Core Curriculum Based on Learning Outcomes and makes ERASMUS + resources available to teachers, but it does not develop its own online learning material.

APOSO could work with competent education authorities to design the platform and standards-based learning material with input from practicing teachers. Examples of learning material could include videos showing how teachers demonstrate different student-centred teaching approaches referenced in the standards. Material that addresses how to teach effectively in a digital learning environment might also be particularly beneficial to support remote learning caused by the COVID-19 pandemic. In designing this material, BiH could look to countries that have created similar websites, like Australia, Belgium and Bulgaria, as these countries have a range of experience in developing platforms to support effective teaching (see Box 3.2).

Box 3.2. Examples of online platforms that support effective teaching

Australia

The Australian Institute for Teaching and School Leadership's (AITSL) Tools and Resources platform provides teachers with a wide range of educational resources. Teachers can select resources that address the areas or topics where they struggle the most. This includes user guides, case studies, and implementation tools. The platform also helps teachers become more familiar with AITSL's Australian Professional Standards for Teachers. For example, it provides easy to follow videos that show how teachers' practices at different career stages demonstrate the teaching standards.

Belgium

Teachers in Belgium have access to *KlasCement*, a resource platform built to support teachers in their practices. The platform was created in the 1990s as an independent network to connect teachers all around Flanders. Currently supported by the Belgian Ministry of Education, the platform is managed and updated by teachers themselves. *KlasCement* reaches around 70% of all teachers in Flanders and the platform can be consulted not only by education staff but also by parents and students. Among the many tools and resources available on the platform, teachers have an online "teachers' room" where they can share their knowledge and practices and get feedback and advice from other peers. *KlasCement* also provides live support and webinars related to distance learning. This was particularly helpful during the COVID-19 pandemic, during which membership of the platform increased to around 50 000 members.

Bulgaria

In an effort to support teachers following the move to online learning as a result of the COVID-19 crisis and school closures, in 2020, the Ministry of Education and Science in Bulgaria developed an online platform where different teaching resources can be found. The National Electronic Library of Teachers, an e-content repository, puts together a collection of materials prepared by pedagogical specialists for teachers working in e-learning environments. For example, it includes training programmes, innovative teaching methodologies and exercises for students.

Turkey

Turkey provides teachers with two digital platforms to support their professional development efforts. One of them is the Professional Development Platform found in the Education Information Network, an online education platform prepared by the Turkish Ministry of National Education which provides free digital content and educational tools for all public school students, teachers and parents. In the Professional Development Platform, teachers are able to access documents and other pedagogical resources they might need to improve their teaching practices, apart from exchanging information with their peers. In addition, teachers in Turkey have also been attending online education courses through the Teacher Information Network. Through this other digital platform, teachers participate in professional development trainings and can access examples of good teaching practices.

Source: (AITSL, 2017[32]), *Tools and Resources*, https://www.aitsl.edu.au/tools-resources (accessed on 4 September 2021); (Ministry of Education and Science of Bulgaria, n.d.[33]), *National Electronic Library of Teachers*, https://e-learn.mon.bg/public/study-resources (accessed on 28 October 2021); (World Bank, 2020[34]), *How countries are using edtech (including online learning, radio, television, texting) to support access to remote learning during the COVID-19 pandemic*, https://www.worldbank.org/en/topic/edutech/brief/how-countries-are-using-edtech-to-support-remote-learning-during-the-covid-19-pandemic (accessed on 28 October 2021); (European Commission, 2020[35]), *Belgian Teachers' improved network platform to connect Flemish docents*, https://eacea.ec.europa.eu/national-policies/eurydice/content/belgian-teachers%E2%80%99-improved-network-platform-connect-flemish-docents_en (accessed on 28 October, 2021); (Turkish Ministry of National Education, 2022[36]), *Teacher Information Network (ÖBA) opened,* https://yegitek.meb.gov.tr/www/ogretmen-bilisim-agi-oba-acildi/icerik/3353 (accessed on 18 March 2022).

Support teachers' collaborative, job-embedded learning

BiH should make much greater use of collegial, school-based continuous professional development to improve teachers' practices. At present, this form of professional development is infrequent (Čelebičić and Jovanović, 2021[18]). For instance, PISA 2018 found that only 27% of 15-year-old students in BiH attended a school where teachers had scheduled time to share, evaluate and develop instructional materials and approaches using digital devices, which was well under the OECD average (44%) and the average across

Western Balkan countries (45%) (OECD, 2020[15]). School-based teacher groups, where they exist, do not always provide spaces for regular collaborative learning. Moreover, while most schools have a pedagogue who is expected to help teachers improve their practice, stakeholders reported that pedagogues' capacity to support teaching and learning is underutilised and that their role is not always supported.

While job-embedded learning can be an effective and low-cost method to develop teachers' competences, teachers and schools will need support to ensure that this practice helps to improve teaching and learning. Specifically, competent education authorities and their pedagogical institutes should consider the following actions:

- **Establish teacher groups for collaborative work and learning in all schools**. Competent education authorities should encourage schools to organise these groups according to teachers' shared subject or grade level so that they can help improve "the content that teachers teach" (Darling-Hammond, Hyler and Gardner, 2017[37]), as well as develop more consistent student assessment practices (see Chapter 2). Entity, canton and district authorities may need to introduce regulations to establish these groups as professional learning communities that regularly conduct the types of collaborative, active learning activities that research identifies as characteristic of effective professional development. These include modelling effective practices, coaching, providing feedback and encouraging teachers to reflect on their work (ibid). For example, classroom observations, discussions about practice and challenges, and joint preparation of instructional material are commonly reported collaborative activities in European countries (European Commission, 2015[38]). Competent education authorities could look at examples from the Netherlands and Albania to inform the work of their own school-based teacher groups (see Box 3.3).
- **Provide external support for the work of school-based teacher groups.** APOSO and interested competent education authorities could develop material to support peer learning at the school level, which would be shared via the online learning platform recommended above. This would be a cost-effective way to provide support and could include descriptions of how to conduct effective classroom observations and other peer learning activities. Pedagogical institutes with sufficient resources might also use train-the-trainer methods to provide face-to-face training and coaching to prepare one member of each school group, who could then lead peer-learning activities. The Ministry of Education in Georgia used this method to train facilitators in primary schools, who then co-ordinated teacher learning circles as part of the 2011-2017 USAID Georgia Primary Education Project (G-PriEd) (OECD, 2019[39]).
- **Build collaborative work and professional learning time into teachers' statutory worktime**. Competent education authorities should establish weekly schedules for teachers that allot time to participate in group meetings and collaborative learning activities (OECD, 2016[40]). While a number of competent education authorities in this review identify professional development and/or work with class councils as teachers' regular obligations, they do not always specify that at least some of the professional development should be collaborative or attach a time commitment to collaborative work and learning. Without this time allotment, it will likely be difficult for teachers to engage in these activities. Indeed, teachers in some administrative units told the OECD review team that they were, at best, sporadic. Competent education authorities should also ensure that the significant number of part-time teachers employed in BiH schools are included in these learning activities, which might require establishing clear worktime and duties for part-time teachers in jurisdictions that lack regulation on this topic.
- **Empower pedagogues to support job-embedded peer learning.** Competent education authorities should ensure that school pedagogues have the time to conduct pedagogical-advisory work with teachers. Rulebooks commonly identify this as one of their main weekly duties, but in practice, pedagogues' administrative tasks reportedly take up much of their time. Competent education authorities should encourage schools to review pedagogues' administrative workloads

to identify tasks that could be eliminated or re-assigned. Furthermore, they should provide more specific guidance around the pedagogical-advisory work that pedagogues should undertake in schools to support the professional learning of individual teachers and teacher groups. For example, they could specify that pedagogues should act as an important bridge between education authorities and school-based teacher groups, helping to conduct professional learning activities and identifying areas where external advice would be beneficial. Pedagogical institutes could also establish networks of pedagogues in their jurisdiction to facilitate their own peer learning and mentorship.

Box 3.3. Example of teacher peer-learning groups and professional networks

The Netherlands

In the Netherlands, the leerKRACHT Foundation, established in 2012, works with teachers in Dutch schools with the goal of creating a peer-learning, continuous improvement culture in which teachers learn from each other and jointly enhance educational practices. This project started in 16 pilot schools, and in the beginning, relied on the knowledge and capacity of the country's teachers' unions, who provided coaches in the schools. With the education staff in the first pilot schools, the leerKRACHT Foundation developed three interventions as the basis for their peer-learning, bottom-up capacity-building programme for schools: joint lesson planning; colleague lesson observations and feedback; and board sessions (small teams hold daily or weekly stand-up meetings to improve quality). Around a thousand schools have implemented this approach since leerKRACHT began, which is roughly 12% of all Dutch schools.

Albania

Albania introduced an innovative method for delivering continuous professional development to reach as many teachers as possible while minimising expenditure. Albania established over 1000 professional learning networks across the country to provide training on curriculum changes and national education priorities using the train-the-trainer method. Each school in Albania also has school subject teams, which are teacher-led groups organised by teaching profile. These groups conduct learning activities for teachers in each school (e.g. discussions, classroom observations). A 2020 OECD policy review recommended that Albania align the work of the professional learning networks and school subject teams and provide them with greater support to provide high-quality learning opportunities to teachers. For example, a central education body could define topics (e.g. major curriculum changes and related teaching strategies) to be the subject of meetings of both the professional learning networks and school subject teams, and task the latter with related active learning activities in schools (e.g. classroom observations, reflective discussions on teaching practices, coaching).

Sources: (Maghnouj et al., 2020[41]), *OECD Reviews of Evaluation and Assessment in Education: Albania*, https://doi.org/10.1787/d267dc93-en; (OECD, 2016[40]), *What makes a school a learning organisation?*, https://doi.org/10.1787/5jlwm62b3bvh-en.

Consider providing grants to schools to conduct continuous professional development in important areas

Schools in BiH are expected to create regular staff development plans, but they do not receive any funding or support to enact those plans. In other OECD and partner countries, like Estonia and Singapore, the government provides schools with earmarked funding to address their staff development needs. This is viewed as an important component of system-wide efforts to improve teaching and learning. However, in BiH, it is unlikely that all competent education authorities would have the resources needed for this type of initiative. Alternatively, the Ministry of Civil Affairs might consider creating a grant programme whereby

schools could submit proposals for funding to conduct continuous professional development projects that address broader education priorities (see Chapter 5). This would help teachers develop competences in key areas, such as inclusive education and ICT. It could also help to improve equity in BiH by prioritising schools in disadvantaged regions.

Instead of a state-level body, entity, canton or district authorities could undertake a new grant programme. Obtaining external funding for the grants from international actors would likely be a necessity given that a lack of resources has made similar grant programmes difficult to implement in the past. For example, the Federal Ministry of Education and Science of BiH conducted the *Support to Professional Development of Pre-school and Primary and Secondary School Teachers* grant programme between 2015 and 2019 (with plans to re-establish a similar programme in 2022) but funding constraints resulting from the COVID-19 pandemic led to the suspension of this initiative in 2020 and 2021. Drawing on international support for a state-level grant programme could be a good way for international actors to help strengthen teaching practices in BiH more systematically.

Policy issue 3.2. Motivating teachers to improve their teaching practices

The absence of measures to motivate teachers' professional development is a major issue in BiH that representatives of administrative units, school leaders and teachers all identified to the OECD review team. While all competent education authorities in this review have introduced career paths for teachers, most are not conducting merit-based promotions along these career paths, in some cases because rulebooks setting out advancement procedures have expired. A variety of factors have prevented competent education authorities from introducing new rulebooks on teacher career paths, including a lack of funding to pay teachers' increased salaries and disagreements with the teaching profession about requirements for promotion. The lack of career advancement represents a missed opportunity to encourage individual teachers' development and to leverage the skills of more experienced teachers to help improve schools and education systems within the country. Despite challenges, all competent education authorities should begin to conduct appraisals for promotion again. They should introduce new procedures that are more objective than past appraisals for promotion to ensure that career advancement decisions are fair and credible. They should also revise their career structures so that teachers at higher career levels receive rewarding salaries in exchange for taking on more complex responsibilities. Ideally, revisions to teacher standards to differentiate competences by career levels (see Recommendation 3.1.1) would inform these changes by strengthening the link between career advancement and performance . Competent education authorities should also consider developing other forms of recognition to reward teachers for working towards education system goals.

Recommendation 3.2.1. Recognise teachers' competency development and high performance

In addition to introducing new appraisal for promotion procedures, competent education authorities in BiH should review and revise their teacher career structures to ensure they sufficiently motivate teachers to learn and develop professionally. For example, education authorities might need to free up resources to provide more substantial performance-based salary increases to teachers. In the short term, authorities should consider new measures to recognise quality teaching without granting salary increases, such as reducing the workload of teachers who take on responsibilities that require higher levels of competency. These measures would provide teachers with a more immediate recognition of their performance, which could later complement other more formal incentives for career advancement.

Connect career levels to rewarding salary increases

Competent education authorities in BiH should ensure that teachers' salary increases for career advancement are progressive enough to motivate teachers to develop professionally. In the past, salary steps associated with career advancement in BiH have not always been substantial. For example, in some administrative units, reaching the mentor, counsellor or senior counsellor levels was associated with salary increases of between 5 to 10% above teachers' base salary, which was significantly less than in many other countries (European Commission/EACEA/Eurydice, 2020[13]). Kazakhstan, for example, has a five-stage teacher career path in which salary steps range from 30 to 50% over the base salary (OECD, 2020[42]). Without sufficiently rewarding salary steps, teachers in BiH may have little incentive to move up the career ladder once appraisals for promotion resume (see Recommendation 3.2.2).

One course of action could be for competent education authorities to monitor the impact of new career advancement procedures, including the number of teachers who seek promotion, and use this information to determine the extent of the need for a more progressive salary structure. All efforts to review and revise the salary scale should involve consultations with teachers' unions and relevant stakeholders in each administrative unit. Increasing salaries will likely require deliberate efforts to address resource inefficiencies in administrative units. In the medium to long-term, competent education authorities could find additional funds by re-directing existing expenditures, such as for teachers' bonuses (see below), consolidating networks of primary and secondary schools and addressing other resource inefficiencies.

Set out a clear progression in responsibilities as teachers advance in their careers

Competent education authorities should also be much clearer in setting out responsibilities for each level of their teacher career paths not only to promote continuous development but also to leverage the competences of more experienced teachers. Not all competent education authorities have defined the specific responsibilities teachers should assume when they are promoted, particularly at higher career levels. In establishing these responsibilities, competent education authorities could, for example, make teachers at higher levels, like advisors or senior counsellors, responsible for leading complex school-wide activities to support teaching and learning, such as helping to conduct school self-evaluations (see Chapter 4). This progression of responsibility should also be reflected in the teacher standards. Specifically, when competent education authorities revise their teacher standards to identify the competences teachers should possess at each career level (see Recommendation 3.1.1), these competences should relate to the types of responsibilities teachers will be taking on as mentors, advisors or counsellors. BiH could use the experiences of North Macedonia as an example of an education system that has aligned competences and responsibilities to create a clear and coherent system for teacher career progression (see Box 3.4).

Box 3.4. North Macedonia's career path and differentiated competences for teachers

Differentiated teacher competences in the North Macedonian teacher standards

In 2016, the Bureau for Development of Education of the Republic of North Macedonia (BDE), with technical and financial support from the United States Agency for International Development (USAID), developed a proposal for a merit-based career structure with different career levels based on clearly-defined teacher standards. The new career structure aimed to encourage and reward increasing levels of teaching competency with opportunities to take on new roles and responsibilities.

The 2016 teacher standards differentiate between a set of values and core professional competences expected from teachers at different levels in the career structure, such as teacher-mentors and teacher-advisors (see table below).

	Teacher-mentor	Teacher-advisor
Responsibilities	Provides guidance and assistance to novice teachers and helps them prepare for the teacher confirmation examination. Also provides support to other teachers. Appraises the novice teacher regularly and provides feedback.	Co-ordinates teacher networks. Monitors and appraises students from teacher education programme during their practicum. Contributes to school self-evaluation and school planning.
Competences	These build on core competences and place a stronger emphasis on those related to the promotion of education in the school as a whole. For example, the teacher-mentor should have skills and abilities directed at increasing the effectiveness of the work of the school and the achievement of its objectives.	These build on both core professional teacher competences and those of teacher-mentors. The teacher-advisor should demonstrate leadership aptitudes both in classroom practices but also as a key agent in the promotion of quality educational work at the school and regional levels.

Source: (MCEC, 2016[43]), *Teacher Core Professional Competences and Standards*, http://www.mcgo.org.mk/pub/Kompetencii_standardi_za_nastavnici_ENG.pdf (accessed on 20 July 2021).

Give teachers opportunities to lead key improvement areas that support school and system quality

BiH could also recognise effective teachers by giving them opportunities to take on new roles in their schools in exchange for reducing their teaching load, without necessarily requiring teachers to seek promotion up the career ladder. An increasing number of OECD countries are distributing leadership in schools in this way to increase teachers' job satisfaction and make use of teachers' expertise to improve school quality. In BiH, competent education authorities could identify new leadership roles and responsibilities for teachers that address areas of importance to school and system performance, like inclusive education and formative assessment (see Chapters 2 and 4). Teachers' new responsibilities in these areas could cover key facets of teacher leadership, notably leadership of students or other teachers (e.g. coaching, mentoring, developing curriculum, leading professional development); leadership of school

operations or organisational tasks; and leadership through decision-making or partnerships (Katzenmeyer and Moller, 2009[44]).

Teacher leaders in BiH who focus on inclusive education, for instance, could coach school staff on how to differentiate instruction, evaluate the effectiveness of their school's inclusive education policies, and co-ordinate changes to school practices. As Austria's experience demonstrates, these new teacher leaders would need meaningful support to fulfil their responsibilities (see Box 3.5). In BiH, expert advisors in pedagogical institutes or ministries of education could provide coaching or networking opportunities to support their role. Competent education authorities would also need to issue guidance to help schools implement this initiative fairly and consistently, such as selection criteria to support the identification of teachers who are ready to take on new roles within their schools.

Box 3.5. The creation of teacher leadership roles in Austria as part of the New Secondary School reform

In Austria, the New Secondary School reform (NMS) which began in 2008 also involved the creation of a new role of learning designers (*Lerndesigners*) with specific expertise in areas of curriculum and instructional development related to the reform goals of equity and excellence. As part of this initiative, each school designates a teacher to be the learning designer who acts as change agent in a shared leadership dynamic with school principals and other teacher leaders, such as subject co-ordinators and school development teams.

Learning designers are trained and qualified for their role and attend national and regional workshops and local networking events. A two-year national qualification programme enables learning designers to acquire theoretical and practical insights in areas of expertise related to instructional quality, to develop the knowledge and skills to be effective teacher leaders and to network with one another. This programme also contributes significantly to their profile and professional identity. It comprises six development areas: mindfulness of learning, diversity, competence orientation, backwards design curriculum development, differentiated instruction and assessment. Learning designers earn a certificate worth 12 ECTS relevant for further study towards a master's degree. The programme consists of national and regional symposia for networking and qualification purposes as well as a self-study component, which is co-ordinated online and includes practice based tasks for exploration in school based professional learning communities.

A virtual networking and learning space is also available to connect learning designers across generations, to promote exchange, learning and development, and to foster a professional identity. To foster school networks and communities of practice and to support learning designers, federal education authorities established a National Centre for Learning Schools.

Source: Adapted from (Nusche et al., 2016[45]), *OECD Reviews of School Resources: Austria 2016*, https://doi.org/10.1787/9789264256729-en, box 4.1, page 160.

Provide grants to teachers to pursue further education on key topics related to student success

BiH should consider establishing a competitive, application-based scholarship programme to reward teachers with opportunities to expand their skills by studying key topics at the master's degree level. As of 2019/20, about a third of EU education systems (16 out of 43) gave lower secondary teachers (primary education or ISCED 2 in BiH) opportunities to take a study leave of more than one month for formal degree programmes or other long-term professional development projects (European

Commission/EACEA/Eurydice, 2021[8]). However, BiH has thus far not made this type of continuous professional development available to teachers (ibid). A scholarship programme could not only benefit individual teachers but also support improvements to teaching and learning across schools and administrative units. For example, competent education authorities could grant scholarships to teachers who demonstrate motivation to study designated topics related to the goals of their education system (e.g. inclusive education, formative assessment or using ICT to support learning). Education authorities could engage tertiary education providers in developing master's programmes on these topics in tandem with efforts to improve ITE (see Recommendation 3.3.1).

Ensuring that teachers can put what they have learnt into practice in their schools should be a key component of this new scholarship programme. Indeed, an evaluation of a bursary programme for teachers in the Netherlands (*De Lerarenbeurs*) found that obtaining a master's degree had a positive impact on teaching quality and teacher leadership but that the impact was dependent on school culture and structures (European Commission, 2018[46]). To address this, competent education authorities in BiH should consider measures like reducing participants' teaching load upon their return to school to give them time to mentor their colleagues on their learning topic. They should also establish and clearly communicate the responsibilities of principals and school staff for helping teachers put their learning into practice. For instance, they could require principals to indicate their school's commitment to the teacher's participation in the programme as part of the application process.

Make sure that any rewards for teachers encourage the use of teaching practices to improve student outcomes

In a positive move, administrative units like Republika Srpska are granting awards to teachers for using innovative teaching practices to meet education system goals (Ministry of Education and Culture of Republika Srpska, 2019[47]). However, other one-off financial bonuses for teachers in BiH do not encourage teachers to work towards education priorities. For example, teachers in Republika Srpska can also earn rewards of either 50%, 70% or 100% of their salary in the previous month for good performance, but this is not based on a clear definition of what good performance means (World Bank, 2021[24]). To encourage desired teaching practices, competent education authorities should base rewards on clear criteria that relate to new teacher standards and education system goals. In the long-term, competent authorities should consider phasing out financial bonuses in favour of rewarding teachers with more substantial salary increases based on career advancement, as recommended above. This would provide a more consistent and transparent method to reward teachers, particularly if based on the type of standards-based appraisal for promotion process recommended below.

Recommendation 3.2.2. Introduce objective appraisal for promotion procedures

All competent education authorities in BiH will need to begin conducting appraisals for promotion again to motivate teachers' ongoing development. However, they should first revise their procedures to strengthen the integrity of appraisal decisions, as these have high stakes for a teacher's career. In the past, some practices did not support reliable and impartial judgements. For example, individuals who had some connection to the teacher being appraised, whether their principal, colleagues, or expert advisor, acted as appraisers. Furthermore, the extent to which competent education authorities prepared and supported appraisers to make informed judgements and provide feedback to teachers on their performance is unclear. In addition, sources of evidence used for the appraisal, notably the teacher's personal file, did not necessarily provide an authentic picture of teaching quality and may have encouraged unhelpful behaviour, like focusing on top-performing students or conducting continuous professional development just to "tick a box". In developing new appraisal for promotion procedures, competent education authorities might benefit from the support of an external body to overcome staffing and funding shortages. Considering that the system is already organisationally complex, instead of creating another agency for this purpose, BiH should

consider tasking APOSO, as the central body with expertise in teaching practices, with providing this support.

Revise appraisal procedures to support credible promotion decisions

Competent education authorities should establish appraisal for promotion procedures that are consistent and reliable given that they have high stakes for a teacher's career. These processes should include the following elements recommended in the research literature:

- **Appraisal against teacher standards.** Teachers' performance should be measured consistently against relevant knowledge, skills and attitudes. In the medium- to long-term, competent education authorities should differentiate teacher standards according to the career path in their jurisdiction (see Recommendation 3.1.1). This will help appraisers determine whether teachers are working towards or have achieved the competences for a specific career stage. Until these are developed, appraisers could refer to the responsibilities associated with each career level, in addition to any teacher standards, to determine teachers' readiness for promotion (see Recommendation 3.2.1).
- **Impartial appraisers**. Appraisals affecting a teacher's career and remuneration should involve some element of externality to ensure objectivity (OECD, 2013[25]). Competent education authorities in BiH should thus consider contracting individuals who are external to a teacher's school to conduct appraisals for promotion. These should be experienced educators with high levels of competency in pedagogy, like teacher-mentors, advisors or counsellors. Organising and preparing these appraisers will take time and resources and might require the support of a central body (see below). Appraisals for promotion should still take into account input from teachers' regular school-based appraisers because they are most familiar with the teacher's work, for example, by drawing on input from regular appraisal reports (see Recommendation 3.1.1).
- **Multiple sources of evidence offering an authentic picture of teachers' competences**. Positively, past appraisal for promotion procedures in BiH commonly relied on classroom observations, which provide direct evidence of teaching practices. Under revised procedures, appraisers should also obtain evidence from a combination of other sources, like interviews and portfolios that document how teachers' work in the classroom and school demonstrates that they have developed relevant knowledge and skills according to the teacher standards. These should yield evidence that teachers are working to support the learning of all students, not just top performers. In the past, teachers in at least one administrative unit could gain points for having students who won competitions, which encourages a focus on top-performing students and is unfair to teachers who work with a high proportion of disadvantaged students.
- **Feedback to support teachers' development.** In a revised appraisal for promotion process, appraisers should provide constructive feedback to teachers on their strengths and areas for improvement in relation to the teacher standards. This could be included in a report for each teacher.

Change the frequency of appraisals for promotion

Appraisals for promotion in the administrative units in this review have been conducted annually or once every two years. By contrast, OECD and partner countries have generally established voluntary appraisals for promotion (7 out of 11 countries as of 2014) or mandatory ones every three or more years (3 countries) (OECD, 2015[29]). Through voluntary or less frequent appraisal-for-promotion procedures, these countries have found that teachers are more likely to engage constructively in their professional development, have more time to develop their competences and feel less pressure to fulfil stringent criteria. With the introduction of formative appraisals to monitor teachers' performance and address weaknesses on an annual basis, as recommended above (see Recommendation 3.1.1), competent education authorities should consider making appraisals for promotion once every four or five years. To support quality

assurance, all competent education authorities could require teachers to pass their appraisals in order to maintain their career level.

Develop material to support the implementation of new appraisal for promotion procedures

Appraisers and teachers in BiH will need guidance to implement new appraisal for promotion procedures. Specifically, appraisers will need support to make consistent judgements about teachers' performance, and teachers will need help understanding how to compile a portfolio and demonstrate that they are ready for promotion. Competent education authorities should develop practical guidelines that describe how to implement appraisals for promotion in their respective jurisdiction. APOSO could also develop resources that different competent education authorities could adopt or use as a reference to create their own. These could be posted on the online platform recommended above (see Recommendation 3.1.2). Tools that would be particularly helpful for appraisers include indicators and performance levels that relate to teacher standards. These tell appraisers what to look for when appraising teachers against each standard and what different levels of performance look like. APOSO could develop these to supplement the *Occupational standards for teachers in general education*. They could draw from international examples of indicators and performance levels like those in Danielson's *Framework for Teaching*, which has inspired appraisal systems in Quebec, Canada, parts of the United States, and Chile. This framework provides concrete descriptions of performance at unsatisfactory, basic, proficient and distinguished levels for different standards (Danielson, 2013[48]).

Consider making APOSO responsible for working with competent education authorities to implement a new appraisal for promotion process

In BiH, APOSO could help competent education authorities overcome resource constraints to conduct credible, high-quality appraisals for promotion. Brčko District is an example of an administrative unit that could benefit from this type of support. In 2011, Brčko District began recruiting teachers as external appraisers to try to make their appraisal for promotion process more objective. However, they had difficulty assuring the quality of appraisers partly because their Pedagogical Institution lacked funding to train the appraisers properly. As a result, Brčko District stopped conducting appraisals for promotion in 2016.

APOSO could work with interested competent education authorities in a manner similar to the Australian Institute for Teaching and School Leadership and the authorities in Australian states and territories who certify Lead Teachers and Highly Accomplished Teachers as part of the teacher career structure there (AITSL, 2017[49]). Like the Australian Institute for Teaching and School Leadership, APOSO could:

- **Develop a common appraisal for promotion process** in consultation with interested competent education authorities, which education authorities could then implement. For example, in Australia, the appraisal is based on common teacher standards (AITSL, 2017[49]). Each competent education authority could still have their own context-specific appraisal requirements, as in Australia, where, for instance, one state has requirements regarding the type of roles teachers must hold when applying for promotion (Queensland College of Teachers, n.d.[50]).
- **Establish a common training programme,** which competent education authorities could require all appraisers to complete in their respective administrative unit in order to have approval to conduct appraisals. The Australian Institute for Teaching and School Leadership, for example, has the same requirement in relation to its Assessor Training Program, which prepares appraisers to use teacher standards to make reliable judgements about teachers' performance (AITSL, 2018[51]).
- **Issue appraisal guidelines and other resources** to help competent education authorities, teachers and appraisers conduct the different elements of the appraisal process.

Policy issue 3.3. Providing sufficient initial preparation of new entrants to the teaching profession

BiH has been a full member of the Bologna Process since 2003, and a state-level accreditation body, HEA, has introduced basic minimum quality criteria for the accreditation of tertiary institutions that provide ITE. Another positive feature of teacher preparation in BiH is a compulsory internship, which provides all newly employed graduates with mentorship from an experienced teacher at the start of their career. If well designed, this type of induction period can help to increase the competence and job satisfaction of novice teachers, which can have a positive impact on student achievement (OECD, 2014[52]). However, there is also significant room to improve the initial preparation of teachers in BiH, and a limited use of data to anticipate future teacher supply and demand, which could help to inform needs-based admission quotas, entry requirements and financial support. In particular, BiH could develop programme-specific requirements for accreditation to help improve the quality of ITE. Competent education authorities should work with various stakeholders to ensure that internship mentors feel prepared and supported to carry out their role. They will also need to ensure that new vocational teachers who have not completed ITE can access required pedagogical coursework during their internship.

Recommendation 3.3.1. Ensure that that all future teachers are prepared for the demands of today's classrooms

Research suggests that ITE, as currently delivered in BiH, is not preparing new teachers for the demands of the classroom and student-centred learning. At present, the quality of initial teacher preparation in BiH varies across institutions, and programmes generally cover less content on pedagogy, psychology, didactics and methodology than is common in EU countries (USAID, 2018[14]). Competent education authorities do not always have minimum criteria for the duration and design of the practicum to ensure that future teachers obtain adequate practical experience before they qualify and take up a teaching position. Moreover, there are limited measures in place to make sure that mentors can provide new teachers with effective support during the internship. As a result, studies have found that many ITE graduates in BiH do not feel competent to work as teachers (CPU, 2015, in (USAID, 2018[14]). To address these issues, BiH should establish policies to improve the quality of initial teacher education, including more rigorous accreditation criteria and expectations for teacher candidates (OECD, 2019[53]). Competent education authorities should also provide more guidance and support to internship mentors.

Consider introducing mandatory accreditation for ITE programmes

BiH should consider requiring ITE providers to demonstrate that their programmes meet minimum standards. At present, these programmes do not need to be accredited, and during the review process, stakeholders in BiH repeatedly expressed concerns about their quality, especially the quality of programmes offered by private providers. Over the past few years, there has been a rapid expansion of private higher education institutions in BiH; the country now has the highest number of tertiary institutions per capita in Southeast Europe (10 public and 36 private as of 2017) (OBC Transeuropa, 2017[54]). At the same time, corruption in the tertiary education sector has been an ongoing challenge (see Chapter 1) (European Commission, 2019[55]). According to the 2020 Bologna Process Implementation Report, BiH's system of external quality assurance is currently at the second of five stages of development, which is lower than all other countries in the Western Balkans aside from Albania.

To ensure the quality of ITE programmes in BiH, ITE providers should agree to undertake an HEA inspection in order to qualify for programme accreditation, and then commit to participating in a process of regular reporting, which could take the form of a self-assessment, with a set of indicators that could help the HEA or equivalent bodies in the administrative units identify any red flags. Where major problems are identified, ITE providers should agree to submit to an additional inspection. The HEA should recommend

and/or equivalent bodies in the administrative units should follow through with the closure of programmes that do not meet minimum standards. In a system the size of BiH, initial accreditation could also include qualitative reviews, perhaps involving experts from neighbouring countries such as Croatia and Slovenia. While these measures would have implications for the funding and staffing of the HEA and equivalent bodies in the administrative units, they are likely a necessary measure to strengthen quality assurance of ITE programmes in BiH – in particular, those offered by private providers. Faced with a similar situation, in 2009, Portugal set up an independent quality assurance agency for higher education that established criteria and procedures for the accreditation of new study programmes and then launched a first cycle of reviews of programmes that were already in operation (completed in 2016). This process led to a significant reduction in the number of tertiary study programmes offered in Portugal, notably in the private sector, but is widely regarded as having been successful in eliminating low-quality programmes across the country (OECD, 2019[56]).

Use BiH's common occupational standards for teachers in general education to define new accreditation criteria for ITE programmes

Once requirements for programme-level accreditation are in place, BiH should develop ITE-specific accreditation criteria. At present, BiH only has general programme-level accreditation criteria, which are not specific to teacher preparation. ITE-specific accreditation criteria should include areas that are critical for high-quality ITE, such as coverage of pedagogical skills and criteria for the teaching practicum. To develop these criteria, BiH should use the common occupational standards as a reference to develop these criteria. Specifically, the criteria should define the outcomes that ITE programmes should achieve or what teachers should know and be able to do by graduation (OECD, 2005[57]). This would be similar to the practice in OECD countries like Australia, Ireland and Estonia, where ITE providers must demonstrate how their programmes will facilitate teacher candidates' acquisition of relevant competences as part of the accreditation process (OECD, 2019[53]).

New accreditation criteria in BiH could also set out requirements for the length of the practicum and its design, such as the expectation that providers work with placement schools and offer training and support to practicum mentors. Furthermore, BiH should develop guidelines that provide more details about requirements for accreditation to help providers revise their programmes. A technical Task Force recommended in Chapter 5 to support the Conference of Education Ministers could undertake these efforts. Such a task force should include representatives of state-level bodies, like HEA and APOSO, competent education authorities, and ITE providers. This work would be somewhat similar to that of Germany's Standing Conference of Ministers of Education and Cultural Affairs of the Länder (sub-national bodies), which approved standards for teacher training in 2004 and common content requirements for subject-related studies and didactics in teacher training across the Länder in 2008 (Schleicher, 2016[58]).

Consider setting out requirements for entry to the teaching profession that relate to initial teacher preparation

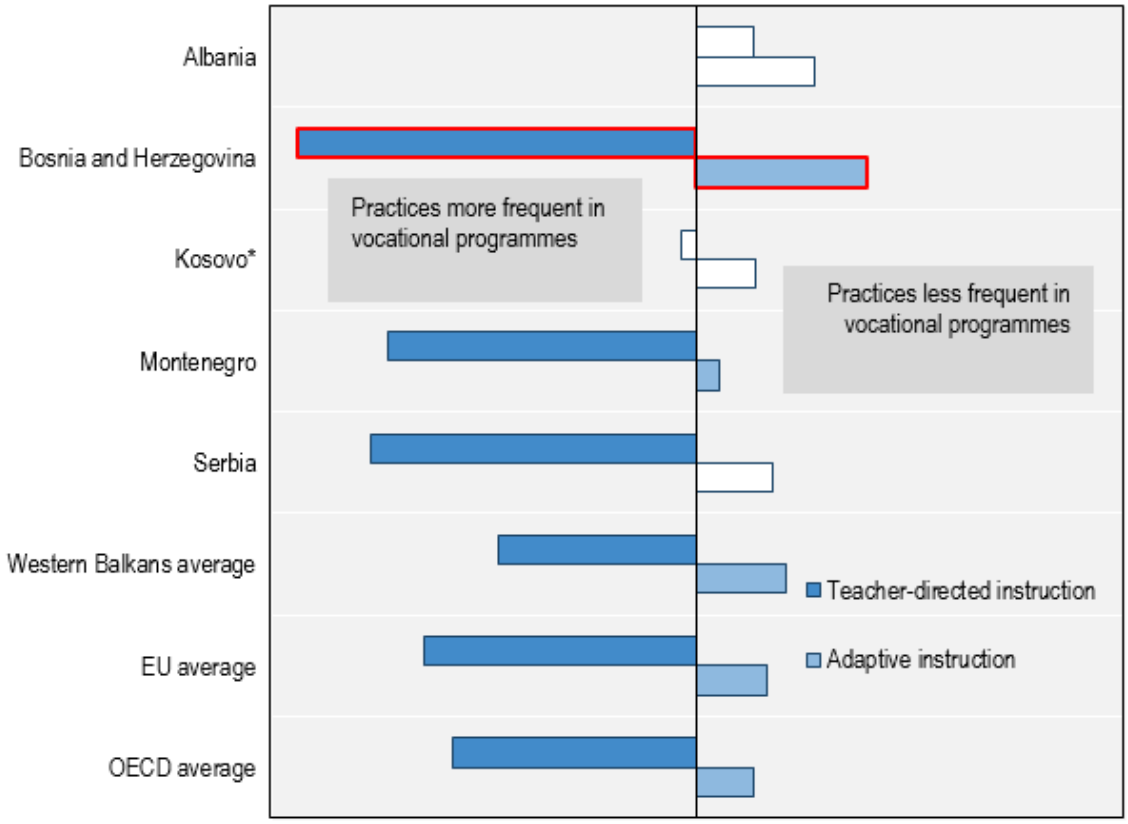
Competent education authorities could also create or revise legislated requirements for entry to the teaching profession to spur changes to the design of ITE programmes. These new requirements could ensure that new teachers complete a minimum number of credits in essential areas, like pedagogy, psychology, didactics and teaching methods. Competent education authorities could develop these requirements independently, but it would be better if they worked together through the Conference of Education Ministers and with initial teacher education providers to harmonise them. This will support teacher employability across BiH and make the requirements more feasible for ITE providers to meet, considering programmes attract entrants from different administrative units.

Ensure that vocational teachers receive sufficient initial preparation

Competent education authorities should review and revise the contents of required preparatory courses for VET teachers who enter the profession as a second career to ensure that they sufficiently cover student-centred teaching approaches. PISA 2018 data shows that teacher-directed instruction (e.g. lecturing to students), which is associated with lower student outcomes, was more common in vocational schools than general education schools in BiH (Figure 3.3), and that the difference was greater than the average difference across OECD and Western Balkan countries (OECD, 2020[15]). Competent education authorities should also uncover and address any barriers to participation in preparatory courses by, for example, surveying VET teachers in their respective administrative units. A small 2015 study found that some industrial engineers who were working as teachers in BiH had not completed any formal teacher education and had only taken the professional exam (USAID, 2018[14]). In OECD countries, common barriers to participation include time constraints and scheduling difficulties (OECD, 2021[59]). If these are issues in BiH, authorities could try offering flexible training opportunities (e.g. online course delivery) or reducing VET teachers' workload to facilitate their participation (ibid). Sweden, for instance, has addressed both financial and time constraints by offering grants to VET teachers to cover the costs of preparatory courses and reducing their working hours by 25% (ibid). In BiH, online course delivery should already be possible given that it has become more widespread during the COVID-19 pandemic.

Figure 3.3. Teacher practices in general education and vocational schools

Only students in upper secondary school



Note: Values that are not statistically significant are shown in blank.
Source: Adapted from (OECD, 2020[15]), *Education in the Western Balkans: Findings from PISA*, https://doi.org/10.1787/764847ff-en.

StatLink https://stat.link/ym7b3k

Ensure sufficient mentorship of interns

In BiH, the main support competent education authorities provide to new teachers during their internship is mentorship by experienced teachers. Positively, competent education authorities in this review clearly set out who should serve as mentors to interns by identifying their role in their career paths. Re-starting appraisals for promotion, if revised as recommended above, will support the identification of effective mentors in the future. In addition, competent education authorities have historically recognised mentors' increased workload through salary increases related to their career advancement or other additional remuneration. However, mentors' specific responsibilities are not clear, and they receive limited support for their role (World Bank, 2021[24]).

To make sure that mentors can provide effective support to interns, competent education authorities should:

- **Define the responsibilities of mentors during the internship** in rulebooks and guidelines. This will establish clear expectations for their role and help to ensure that all interns receive the same level of support.

- **Develop mentorship guidelines.** In addition to setting out mentors' responsibilities, these should provide practical resources for mentors, like forms they could use to record their observations of interns' practices. Competent education authorities could survey mentors and new teachers to determine what other resources would be helpful.
- **Provide free mandatory training**. This should consist of a practical seminar that covers mentors' main responsibilities, including how to conduct classroom observations and provide constructive feedback to support interns' professional learning. APOSO might develop modules for this training, and then work alongside the pedagogical institutes to help them to deliver this training to the teachers that will serve as mentors.
- **Offer ongoing support**. For example, pedagogical institutes / ministries of education could establish networks for mentors to share effective practices with each other.

Recommendation 3.3.2. Use data to adjust entry requirements for initial teacher education and ensure an appropriate supply of teachers

Unlike the majority of European countries, competent education authorities in BiH do not conduct systematic forward planning to inform decision-making around policies related to the supply of new teachers (European Commission/EACEA/Eurydice, 2018[2]). As a result, competent education authorities risk an oversupply of teachers in some areas and a shortage in others. By making better use of data to inform admission quotas and ITE entry requirements, competent education authorities could ensure a more efficient use of resources and better anticipate future needs. Such efforts could also free up funding for scholarships in areas that face a shortage of teachers, as well as support other education reforms. In developing scholarships and new requirements for entry to ITE, competent education authorities could look to Republika Srpska, which proposed similar activities in its 2016-2021 education strategy (European Commission, 2018[60]).

Develop a forecasting model to predict the demand for teachers within administrative units

Competent education authorities should develop a forecasting model that uses a range of data variables to project areas of teacher over- and undersupply. For example, forecasting models in European countries generally include data like the demographics of the teaching population (e.g. age distribution), the number of teachers by subjects taught, the rate of early leaving and retirement, and the employment status of teachers (European Commission/EACEA/Eurydice, 2018[2]). Given capacity shortfalls in different administrative units, one option could be for a state-level body such as the Ministry of Civil Affairs to lead the development of a common forecasting model, possibly with the technical or financial support of an international actor. The Bulgarian government, for instance, recently developed a forecasting model with the World Bank. In BiH, a common forecasting model would rely on data from – and be used by – competent education authorities. Accordingly, competent education authorities should make efforts to improve the quality of the data they collect and further develop their education management information systems (EMIS), where they exist (see Chapter 5).

Use the forecasting model to meet the needs of each education system

Using a forecasting model to develop or adjust policies would help ensure an appropriate supply of competent teachers. Considering this issue affects all administrative units, BiH might consider a state-level or an entity-level response (i.e. RS and FBiH). In many cases, developing and using this type of forecasting model will involve working with initial teacher education providers. Specifically, BiH education authorities should use the model to:

- **Adjust admission quotas to ITE programmes**. At present, competent education authorities base decisions regarding the funding of ITE spaces on proposals from tertiary providers that rely on

labour market analyses (e.g. the number of retiring teachers). A forecasting model, as described here, could take into account additional data variables, and provide a more comprehensive and independent way to determine admission quotas and funding for ITE programmes.

- **Establish thresholds for acceptance to ITE programmes**. There are no minimum requirements for admission to these programmes at present. In the medium- to long-term, a key threshold could be minimum grades on new Matura exams at the end of secondary education (see Chapter 2), which would provide external confirmation that candidates have achieved a basic level of competence in key subject areas. ITE providers should also ensure that any additional requirements for admission measure competences that are relevant to teaching. For example, interviews that assess applicants' motivation to teach and their socio-emotional skills may be a helpful complement to existing criteria, such as their grade point average, since this would enable schools to identify attitudes and aptitudes that are essential for success in the classroom.
- **Introduce or adjust ITE scholarships for the best candidates.** Policies regarding scholarships vary across administrative units. Competent education authorities that currently cover all tuition costs for full-time first-cycle initial teacher education students could shift to more targeted measures, like scholarships for high-performing students or students who study shortage subject areas, if data indicates that there is not a general teacher shortage in their area.
- **Identify harder-to-staff schools and introduce incentives to attract competent teachers to work there**. At present, some competent education authorities provide teachers with salary allowances if they work at a school that is a certain distance away from a municipal centre (European Commission/EACEA/Eurydice, 2020[13]). Competent education authorities might consider introducing additional incentives, such as career fast tracks or priority in transferring to their next school for teachers who commit to teaching in a harder-to-staff school for a certain period. Competent education authorities could also factor in the results of new appraisals for promotion to target incentives to the most competent experienced teachers.

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4 Strengthening evaluation capacity to support the most at-risk schools and build school leadership

Several competent education authorities in Bosnia and Herzegovina (BiH) have been moving away from a compliance-oriented approach to school quality assurance towards procedures that emphasise the development of learning and teaching practices. Despite these efforts, most competent education authorities covered by this review do not conduct external evaluations or self-evaluations of schools. Many also lack consistent standards or implementation protocols for evaluating school performance, which makes it difficult to form reliable judgements and determine where and how best to provide schools with support. This chapter puts forward a set of practical recommendations that aim to accelerate the development of improvement-oriented evaluation practices in BiH school systems, while making the most of limited resources and capacity

Introduction

In recent years, several competent education authorities in Bosnia and Herzegovina (BiH) have followed the direction of European education systems in moving away from an administrative, compliance-oriented approach to school quality assurance to introduce more evaluation-based procedures focused on developing instructional practices. For example, Republika Srpska introduced external school evaluation and school self-evaluation in 2017/18, and West Herzegovina Canton now requires schools to conduct self-evaluations. Importantly, both have established quality standards that identify the practices schools should employ to improve student learning and development. However, despite efforts to introduce school evaluations more widely, most authorities do not conduct external school evaluations or self-evaluations. Instead, general school supervisions are more common. While these school supervisions go beyond compliance checks and attempt to provide a perspective on the quality of teaching and learning practices, the procedures examined as part of this review were not based on consistent standards or implementation protocols. This makes it hard for competent education authorities to make reliable judgements about school performance and determine where and how to provide support.

All education authorities in BiH also face considerable resource and capacity constraints, which further hinder school monitoring or evaluation. These challenges have been compounded during the COVID-19 crisis. It is therefore particularly important that authorities use available resources pragmatically and prioritise the evaluation and support of schools that are most at-risk. This chapter puts forward a set of practical recommendations to accelerate the development of improvement-oriented evaluation practices in ways that make the most of limited resources. Specifically, all competent education authorities should develop and use consistent school quality indicators to identify at-risk schools and target support initiatives. This in turn requires authorities to build the capacity of pedagogical institutes or their equivalents to provide support to schools. The chapter also examines how strengthened self-evaluation procedures, enriched with support from BiH-level bodies, can be leveraged to help schools drive their own improvement.

School governance and management in Bosnia and Herzegovina

School leadership in Bosnia and Herzegovina

Education actors in BiH have made efforts to improve the quality of school governance and management over the past 20 years. For example, in 2002, they committed to making school governance and management more modern, democratic and inclusive to be more consistent with EU standards (BiH, 2002[1]). This led to new appointment processes for school principals and the establishment of school parents' councils and student councils in the 2003 Framework Law on Primary and Secondary Education in Bosnia and Herzegovina. However, the school principal role in BiH has remained influenced by politics and focused on administrative tasks rather than instructional leadership. To address this, some competent education authorities are introducing measures to professionalise the role, such as standards of school leadership and principal appraisal processes. However, for the most part, these are in the early stages of development and, as with efforts to develop the teaching profession, they are hindered by a lack of resources and capacity in BiH's education systems.

Despite efforts, school leader appointments remain influenced by politics

Each competent education authority in BiH has their own requirements for becoming a school principal. Some are similar to those in other European countries, including the need to have at least five years of experience as a teacher or educator (European Commission/EACEA/Eurydice, 2020[2]). This is positive because it ensures that principals are familiar with the school environment. However, while some cantons in this review plan to develop initial training for principals, this is not a current requirement for the role. By

contrast, a number of OECD countries mandate training for new principals, either before or upon taking up the position, to ensure that they have some preparation in school development and management (Pont, Nusche and Moorman, 2008[3]). Furthermore, politics influence the hiring of school leaders in BiH, despite efforts over the years to make the process more objective and meritocratic. While school boards commonly initiate the recruitment process and declare the winner, depending on the jurisdiction, the competent education authority either directly selects or approves the candidate or can influence decisions of school board members (Gabršček, 2016[4]). The lack of initial training and influence of politics mean that principals in BiH do not always have the competences they need to improve teaching and learning in their schools.

School leadership focuses on administrative responsibilities

The school leadership role is focused more on administrative tasks than instructional leadership (e.g. school self-evaluation and advising teachers on the quality of instruction), which is essential to school improvement. School principals in BiH are responsible for the school's day-to-day management and leading pedagogical activities, in line with the Framework Law on Primary and Secondary Education in BiH. However, research has found that, in some administrative units, they tend to focus more on the former (World Bank, 2019[5]). West Herzegovina Canton plans to develop professional standards setting out what principals should know and be able to do, but otherwise, the authorities covered in this review do not have standards for school leadership. In OECD member and partner countries, these standards commonly inform principal recruitment, training and appraisal.

School leaders in BiH are obliged to participate in continuous professional development, but there are no requirements regarding the frequency or duration of this training (Gabršček, 2016[4]). There are some positive examples of principal networking, notably in Republika Srpska and Brčko District. However, as with teachers' professional learning (Chapter 3), the pedagogical institutes or their equivalents that are responsible for organising or delivering training to principals, lack the resources to provide them with systematic learning opportunities. In 2020, the Council of Ministers of BiH identified this lack of professional learning for school principals as a gap and called for new programmes on essential topics such as school development and pedagogical leadership (Council of Ministers of Bosnia and Herzegovina, 2020[6]).

None of the competent education authorities are conducting appraisals of school leaders, although some processes have been developed or proposed

Unlike just over half of OECD countries (OECD, 2015[7]), the competent education authorities in this review do not conduct appraisals of school principals' performance to support leadership development and accountability. While Republika Srpska has developed an appraisal process, representatives of the Republic Pedagogical Institute of Republika Srpska informed the review team that it is not being implemented because the relevant rulebook is out of date. West Herzegovina Canton is planning to develop a standards-based principal appraisal process in the future. A good feature of Republika Srpska's former process was that principals' performance was assessed regularly (at least once every two years) against consistent criteria, namely: i) management of the schooling process; ii) planning and organisation of the work of the school; iii) co-operation with the local community and parents; and *iv)* financial and administrative management. However, the minister of the competent education authority conducted the appraisal, whereas in other countries, appraisers are commonly required to have experience in school contexts and sometimes to be completely independent to ensure that their judgements are objective (ibid). Furthermore, it is not clear whether Republika Srpska's appraisals were designed to produce constructive feedback or identify professional learning activities to support school leaders' development. These outcomes are critical to building principals' competences (Pont, Nusche and Moorman, 2008[3]).

Other forms of assessing school leadership exist in some administrative units. Positively, new school evaluation processes in Republika Srpska and West Herzegovina Canton (school self-evaluation only) assess the management of the school, which could provide information to help principals refine their

practices (see below). On the other hand, school boards in BiH commonly conduct assessments of principals' performance to grant salary bonuses, but these are generally informal (Gabršček, 2016[4]). Across the OECD, evaluation processes with clear procedures and criteria are more effective at producing good school leadership practices (OECD, 2013[8]).

Schools lack autonomy and resources to pursue improvements

Schools in BiH lack autonomy to make financial and other management decisions that affect how the school functions and develops (Branković et al., 2016[9]; Gabršček, 2016[4]). These powers are centralised at the competent education authority level. Depending on the administrative unit, municipalities may also make some school funding decisions. In addition, the particularities of BiH's institutional set-up tend to reduce the funding that is available to schools. Since each authority is responsible for their own education system, they generally spend a considerable percentage of their education budgets on administrative costs, such as salaries for personnel, including teaching staff (e.g. 91% in FBiH), leaving limited funds for capital investment and improvement measures (World Bank, 2019[5]). Furthermore, most authorities use a school funding model that is based on inputs (e.g. norms and standards for class sizes) rather than factors that reflect a school's actual budgetary needs (ibid). In Central Bosnia Canton and West Herzegovina Canton, for instance, funds are allocated based on the number of teachers in the school, regardless of the size of the student population or other school characteristics that affect funding needs (BiH, 2021[10]).

In some administrative units, schools rely on local donors to cover some costs, which puts schools in low socio-economic areas at a disadvantage. Many schools in BiH lack resources. In PISA 2018, for instance, a significant share of BiH students studied in schools where the principal reported that instruction was hindered by a lack of educational material, inadequate or poor quality educational material, a lack of physical infrastructure, and inadequate or poor quality physical infrastructure (Figure 4.1) (OECD, 2020[11]). This has implications for school evaluation and improvement, since schools that struggle to cover their basic material and infrastructure needs will not be in a strong position to develop their practices.

Figure 4.1. Principals' perceptions of key educational resources

Percentage of students in schools whose principal reported that the school's capacity to provide instruction was hindered a lot by:

	A lack of educational material	Inadequate or poor quality educational material	A lack of physical infrastructure	Inadequate or poor quality physical infrastructure
Albania	8	5	7	6
Bosnia and Herzegovina	18	16	13	13
Kosovo*	33	22	18	15
Montenegro	5	3	5	7
North Macedonia	16	7	8	8
Serbia	5	3	6	8
Western Balkans average	14	9	9	10
EU average	4	4	9	10
OECD average	5	4	9	9

	Less than 5
	5 to 10
	10 to 15
	15 to 20
	Greater than 20

Note: Darker tones indicate greater reported lack of resources.
Source: Adapted from (OECD, 2020[12]), *Education in the Western Balkans: Findings from PISA*, https://doi.org/10.1787/764847ff-en.

StatLink https://stat.link/gct8qm

School evaluation in Bosnia and Herzegovina

Most competent education authorities in this review do not have external school evaluation or school self-evaluation procedures. The exceptions are Republika Srpska, which recently introduced a framework for both types of school evaluation, and West Herzegovina Canton, which now requires schools to conduct self-evaluations. The other education authorities in this review conduct periodic on-site reviews of schools' practices, but these are not based on consistent standards of school quality. Internationally, such standards are an integral feature of school evaluation frameworks. Without them, competent education authorities lack the means to make well-informed judgements about how schools are performing in relation to broader system priorities and to compare their results to identify and support the most at-risk schools.

There is also scope for education authorities to strengthen the link between school monitoring or evaluation activities and school improvement. Positively, each authority has a body that can provide support to schools – either a pedagogical institute or an equivalent in the respective Ministry of Education. However, authorities do not systematically use the results of school supervision or evaluation to prioritise schools for support. Furthermore, resource and capacity constraints impede the implementation of school monitoring and evaluation activities. For example, pedagogical institutes and their equivalents lack the staff to conduct regular monitoring visits. Within this context, developing school self-evaluation capabilities is critical, because it can help schools to drive their own development. However, schools do not conduct this type of evaluation in three of the five authorities in this review. Where it is conducted, schools need more external support to review and improve their practices.

Table 4.1. Types of school evaluation in Bosnia and Herzegovina

Types of school evaluation	Reference standards	Body responsible	Guideline documents	Process	Frequency	Use
External school evaluation (Only in Republika Srpska)	Different sets of standards for: elementary schools; secondary schools; vocational schools	Pedagogical institute	None	1) Selection of sample schools 2) Inspection 3) Completion of inspection 4) Delivery of inspection report, and publishing on website	Not regulated, but the goal is once every five years	Accountability and to improve the quality of educational work
School self-evaluation (Only in Republika Srpska and West Herzegovina Canton)	Same standards as external school evaluation (Republika Srpska)	School self-evaluation team or school development team	Professional instructions for: elementary schools; secondary schools; vocational schools (Republika Srpska)	1) Form a self-evaluation team 2) Study standards and indicators 3) Collect materials and documentation 4) Identify strengths and weaknesses 5) Draft a report on the self-evaluation process 6) Design solutions and actions; identify opportunities, constraints and resources needed 7) Draft an improvement plan with goals, roles and responsibilities, and a time frame (Republika Srpska)	Annual	School self-improvement; to inform the school development plan and school priorities

Source (Pedagogical Institute of Republika Srpska, 2019[13]), *СТРУЧНО УПУТСТВО за самовредновање квалитета васпитно-образовног рада у основној школи [Professional instructions for self-evaluation of the quality of educational work in elementary* school], https://rpz-rs.org/sajt/doc/file/web_portal/04/4.8/2018-19/Strucno_uputstvo_za_samovrednovanje_rada_OS.pdf, (accessed 26 April 2021); (BiH, 2021[10]), *Country Background Report for the OECD Review of Evaluation and Assessment in Education: Bosnia and Herzegovina*, unpublished.

External school evaluation

Most of the competent education authorities in this review do not conduct external school evaluations or have school quality standards

The education authorities in this review have made efforts to introduce external school evaluations in the past. For example, in 2012, the state-level Agency for Pre-school, Primary and Secondary Education (APOSO) worked with competent education authorities to develop and implement a school evaluation toolkit with standardised criteria in four important areas: i) school climate; ii) co-operation with the parents' council and student council; iii) school management; and iv) and teacher competences (Council of Ministers of Bosnia and Herzegovina, n.d.[14]). Indicators in this toolkit covered some school practices that research identifies as effective at improving student outcomes for the 21st century, like networking with other schools and teamwork among teachers (OECD, 2016[15]). While some authorities and schools implemented the toolkit, it was reportedly not supported by a number of BiH governments and it fell out of use.

Instead of conducting external school evaluations, four of the five competent education authorities in this review use general school supervision procedures. This form of monitoring provides a snapshot of a school at a point in time. Positively, it commonly includes an on-site observation of classes, which can provide insight into the quality of instruction. School supervisions often result in a report (with findings and recommendations), which a number of principals noted as helpful. However, it is not a systematic process. While some administrative units, like Brčko District and Central Bosnia Canton, require that every school

be subject to general supervision within a certain period of time, this is not the case with all of the administrative units. Specifically, unlike two-thirds of EU education systems, the majority of competent education authorities in this review do not measure schools against consistent indicators of quality (European Commission/EACEA/Eurydice, 2015[16]). The result, as one school leader told the review team, is a lack of continuity between monitoring rounds and no long-term analysis of how school practices are impacting student outcomes. The lack of consistent standards also means that education authorities cannot compare schools to determine which need to improve the most. Furthermore, most authorities do not, as a matter of course, offer support to struggling schools as a follow up to school monitoring activities, to make sure they have capacity to improve.

Republika Srpska has introduced a school evaluation framework

Republika Srpska introduced school quality standards and processes for external school evaluation and school self-evaluation in 2017/18. Positively, this new school evaluation framework was based on international best practices and refined after an initial pilot and feedback from participating schools. The school quality standards cover aspects of a school environment that are most important to improve students' learning, including instructional leadership (Table 4.2) (OECD, 2013[8]). A particularly good feature of the standards is their focus on school self-evaluation. This can motivate schools to regularly assess their practices in order to plan improvements. While the standards state that schools should conduct formative assessments of students, which is positive, teachers do not receive any tools or support in using formative assessment in their classroom and the use of external standardised tests are mainly for monitoring system performance rather than to support learning (Chapter 2).

Table 4.2. Republika Srpska's school quality standards

Standards	Examples of indicators
School management and administration	The director initiates and takes measures to improve the work of the school based on an analysis of student achievement, as well as the results of monitoring and evaluating the work of employees.
Teaching and learning	Key competences are integrated into teaching and learning, regardless of the subject or subject area.
Student achievement	Student assessment is done formatively and summatively and in accordance with the rulebook on assessment of students. The achieved results of external checks of student achievements show if students have achieved the average for Republika Srpska or are above this average.
Student support	The number of students who dropped out of school or were transferred to another school is lower than in the previous school year.
Co-operation of the school with the family and institutions in the local community (Elementary) Organisation and content of curricula (Secondary and Vocational)	The school has a system for regularly informing parents about school activities (Elementary). Teachers critically analyse the curricula of their subjects, and record their observations, remarks and suggestions for improvement (Secondary). The curriculum is systematically revised to ensure consistency with the needs of students, trainees and the economy, through established systems, in order to determine training needs and provide the qualifications the labour market needs (Vocational).
Human, physical and specialist resources within the school	The professional development plan of teaching staff envisages various forms and ways of professional development training and is aimed at improving the quality of work and the work of teachers.
Quality assurance systems and procedures	The school writes a periodic report on the conducted self-evaluation which contains an action plan as well as responses to identified weaknesses.

Source: (BiH, 2021[10]), *Country Background Report for the OECD Review of Evaluation and Assessment in Education: Bosnia and Herzegovina, unpublished.*

Republika Srpska's external school evaluations are stronger at supporting accountability than school improvement

Republika Srpska's external school evaluation process appears similar to other EU countries (European Commission/EACEA/Eurydice, 2015[16]). The director of the pedagogical institute appoints a team of five to seven evaluators, which can include external expert advisors and evaluators, such as principals or pedagogues, to conduct the evaluation. Positively, they also receive training for their role. The evaluators then review documentation about the school, including its self-evaluation report and undertake an on-site inspection. At the end of the process, they produce an inspection report with findings, ratings (both an overall rating and a rating against each standard as insufficient, satisfactory, good, or excellent) and recommendations for improvement.

External school evaluations in Republika Srpska include procedures that support accountability and encourage schools to act upon recommendations. For example, if a school receives ratings that are below satisfactory, the pedagogical institute will set a deadline for improvement and conduct a follow-up evaluation. The institute also requires all schools to develop an action plan that responds to inspection findings and post all inspection reports publicly on its website. However, more could be done to support school improvement. While schools can ask the institute for support at any time, low-performing schools do not automatically receive more guidance or attention following an evaluation to help them improve.

There is also no guarantee that all schools will receive a regular external evaluation. The pedagogical institute identifies a sample of schools to evaluate each year based on factors such as size and the number of employees. However, unlike many OECD countries, Republika Srpska does not regulate the school evaluation cycle (OECD, 2015[7]). In addition, Republika Srpska has not had enough expert advisors to conduct the evaluations it plans each year, although a recent re-organisation of the pedagogical institute may address this issue. The entity has also struggled to attract external evaluators from the private sector who could help evaluate VET schools.

Competent education authorities face challenges in monitoring and evaluating schools

Competent education authorities lack sufficient resources to conduct regular school monitoring, which must compete for time and resources with other responsibilities under their mandate, including curriculum development, professional teacher supervision and teacher training (World Bank, 2021[17]). The COVID-19 pandemic has compounded these constraints, putting a halt to external school monitoring and evaluations in the jurisdictions covered by this review. Furthermore, Sarajevo Canton has not monitored schools since the jurisdiction closed its pedagogical institute in 2021. The canton does not plan to carry out school monitoring until it establishes the new Institute of Pre-University Education.

Several factors affect the credibility of school monitoring and evaluation

Expert advisors in pedagogical institutes have conflicting roles, which may make their judgements less credible. Specifically, their parallel mandate to support schools may reduce objectivity in reviewing the same schools' practices. In addition, in some BiH education systems, there are concerns that expert advisors may be subject to political pressure in their work (Gabršček, 2016[4]), and this relates to broader concerns about integrity in BiH's education system (Chapter 1). Representatives of one authority, for instance, noted that schools are sceptical about advisors' independence because the pedagogical institute is part of the ministry. In some administrative units, the capacity of expert advisors may also be limited by low salaries and a lack of training (World Bank, 2021[17]). If supervision and evaluation processes are not viewed as credible, schools are less likely to trust the results and therefore act upon them.

School self-evaluation

School self-evaluation is not mandatory in most of the jurisdictions covered in this review

Schools do not conduct regular self-evaluations in three of the five jurisdictions covered in this review. In Sarajevo Canton, school self-evaluation is not mandatory. In Central Bosnia Canton, legislation states that schools may conduct self-evaluations to inform their annual development plans, but there is no document that prescribes this process in more detail (BiH, 2021[10]). In Brčko District, the school principal is required to report to the school board on implementation of the annual plan, but self-evaluation is not required. This is a significant gap. School self-evaluation is an essential complement to external school evaluation. In OECD countries, it involves school staff regularly reviewing their practices, often to inform their school development plans (OECD, 2013[8]). Schools thus continuously work towards their own improvement rather than relying solely on external bodies to identify and address their weaknesses.

Republika Srpska and West Herzegovina Canton have some strong school self-evaluation processes, but schools may lack capacity to conduct them effectively

Republika Srpska and West Herzegovina Canton require schools to conduct self-evaluations once a year, like the majority of OECD and EU countries where this practice is compulsory (European Commission/EACEA/Eurydice, 2015[16]; OECD, 2015[7]). The methodologies in both administrative units have a number of strengths that are consistent with recommendations in the research literature and common practice internationally. Specifically, there is a high level of staff involvement in school self-evaluation. For example, Republika Srpska's professional instructions state that the school self-evaluation team should consist of a heterogeneous mix of teachers and may also include representatives of the parents' council and student council (Pedagogical Institute of Republika Srpska, 2019[13]). Self-evaluation also engages school stakeholders, including members of the local community in Republika Srpska. This is important to gather a range of perspectives to inform the evaluation, and to promote shared responsibility for school quality (European Commission, 2020[18]). Furthermore, Republika Srpska and West Herzegovina Canton require schools to use self-evaluation results to inform their development plans, which helps ensure that the process leads to improvement. In West Herzegovina Canton, for instance, self-evaluations inform schools' one-year and three-year priorities. In addition, schools in Republika Srpska are expected to use the same school quality standards that are used for external school evaluation, which helps to provide a consistent message on the factors that are important to high-quality teaching and learning and the student outcomes they are working towards (OECD, 2013[8]).

However, schools' capacity to conduct self-evaluations may be an issue, particularly in Republika Srpska. School leaders told the OECD review team that the process feels rushed. Republika Srpska provides schools with self-evaluation supports that are common in EU countries, including guidelines, training, and external specialists in the form of pedagogical institute expert advisors (European Commission/EACEA/Eurydice, 2015[16]). Nevertheless, school staff reported that they find the current half-day workshop, delivered using a train-the-trainer method, to be insufficient. They reportedly feel less prepared than when they could audit school evaluations and participate in more extensive training offered jointly by the Pedagogical Institute of Republika Srpska and the non-governmental organisation "Economic Policy and Regional Development".

School-level data and its use

Bosnia and Herzegovina lacks data on school quality and student outcomes

In general, expert advisors and schools in BiH lack easy access to data that would allow them to monitor or compare school quality. Some authorities do not have the capacity to develop an electronic information management system (EMIS), which many OECD countries use to cyclically collect data about schools'

contextual features (e.g. student, teacher and school demographics) and student outputs and outcomes (e.g. completion rates and national exam results). Indeed, education systems in BiH are characterised by a lack of data on student learning outcomes (Branković et al., 2016[9]). Of the authorities in this review, only Sarajevo Canton and Republika Srpska conduct external tests of student learning (an examination in Sarajevo Canton, and an assessment in Republika Srpska).

Policy issues

Republika Srpska and West Herzegovina Canton have introduced school evaluation procedures, and other competent education authorities have made efforts to introduce school evaluations over the past ten years. However, most authorities conduct "snapshot" reviews of schools in lieu of external evaluations that provide information on performance against consistent standards of quality. Furthermore, all authorities struggle to monitor or evaluate schools regularly due to resource and capacity constraints. These weaknesses in both the design and delivery of school evaluation have significant implications for educational improvement in BiH. They mean that, at present, most education authorities cannot reliably account for the quality of teaching and learning in their schools nor evaluate whether and how policies to enhance instruction and outcomes are being implemented in the classroom. School leaders and teachers, themselves, lack perspective on their practices, and parents and children cannot accurately compare the quality of education in different institutions. This lack of reliable information on school quality also makes it difficult for authorities to channel support measures effectively.

To improve school quality and student outcomes, it will therefore be essential for competent education authorities to introduce school monitoring procedures that are both more systematic and more efficient. Specifically, they should develop school quality indicators that relate to goals for student learning and development, identify schools that are not meeting a quality baseline, and provide these schools with targeted support. While all authorities have expert advisors in pedagogical institutes or their equivalents who provide supports to schools, they do not focus on struggling schools for follow-up support. Competent education authorities should develop procedures for expert advisors to provide hands-on support to at-risk schools and ensure that they have the capacity to fulfil this role. Finally, all authorities should introduce school self-evaluation methodologies and provide guidance, resources and training – in some cases, with the support of a state-level body – so that schools can use evaluation results to implement improvements. Developing schools' internal capabilities to evaluate the quality of their practices and define their own improvement objectives is particularly important in BiH given that resource and capacity constraints prevent most authorities from implementing regular external school evaluations.

Policy issue 4.1. Using consistent measures of school quality to support school improvement

The vast majority of OECD countries conduct external school evaluations (29 out of 37 as of 2015) (OECD, 2015[7]), often based on school quality standards that are linked to national education priorities. As a result, all schools can see what will be measured, evaluators have clear guidance for their judgements, and education authorities have a means to monitor and report publicly on progress toward agreed goals. External evaluation is also, and above all, a valuable resource for school improvement. It can serve as both an internal resource, to develop a culture of reflection and learning within schools, and as an external resource, to inform the design of support programmes, and (where needed) additional oversight.

In BiH, Republika Srpska has started to evaluate schools against a set of school quality standards. Other authorities implemented external school evaluations in the past, using APOSO's school evaluation toolkit. In most administrative units in this review, expert advisors from the pedagogical body conduct school monitoring – in some cases, based on detailed rulebooks. However, these reviews are not systematic and

are not always based on standardised measures of school quality. Resource constraints also preclude regular, cyclical school visits in all of the administrative units in this review. As a result, authorities cannot identify schools that are most in need of support to assist student learning. This is an acute gap, particularly given performance differences between different types of school in BiH. In PISA 2018, for instance, students from rural schools attained significantly lower reading results (by 50 points) than students from urban schools (OECD, 2020[12]). Competent education authorities will need to ensure that school monitoring is consistent, efficient and focused on school improvement in order to address these challenges.

Recommendation 4.1.1. Develop indicators of school quality

While most competent education authorities cannot introduce systematic external school evaluations or conduct regular school supervisions in the short- to medium-term, it would be beneficial to provide more targeted support to schools. Authorities could therefore develop a set of school quality indicators to inform regular monitoring of at-risk schools. These indicators could be developed as a collective effort between different competent education authorities in partnership with APOSO, as the state-level body with expertise in education standards, and could address shared education priorities.

Develop indicators of school quality connected to goals for education

APOSO should collaborate with competent education authorities to identify the main changes that are needed to improve school quality. These could be related to common education goals (Chapter 5). In Bulgaria, for instance, stakeholders recently developed a vision of a school in 2030, which reflects the country's new school quality standards and its long-term education strategy (Box 4.1).

Box 4.1. Bulgaria's vision of school in 2030

Vision for education, training and learning in the Republic of Bulgaria in 2030:

In 2030, all Bulgarian young people graduate from school as functionally literate, innovative, socially responsible and active citizens, motivated to upgrade their competences through lifelong learning.

The institutions of pre-school and school education in 2030 offer the most safe, healthy, ecological and supportive environment, where educational traditions, innovative pedagogical solutions and digital development co-exist. They constantly evolve as spaces for learning and development, for recreation and interaction between children, students, parents and the local community, united by shared values to achieve a common goal – the formation of knowledgeable and capable individuals able to make responsible choices and to achieve their goals in a dynamic and competitive social environment.

Source: (MoES, 2020[19]), *Strategičeska Ramka za Razvitie na Obrazovanieto, Obučenieto i Učeneto v Republika Bălgarija (2021 - 2030) [Strategic framework for the development of education, training and learning in Republic of Bulgaria (2021-2030)],* Ministry of Education and Science, Sofia.

Building on this analysis and reflection, competent education authorities, with support from APOSO, should define a core set of five to ten school quality indicators that are relevant to all cantons and entities, as well as (potentially) a set of indicators that education authorities could apply at their discretion. Competent education authorities could also develop additional indicators that relate to their specific contexts and goals and could share these with each other to facilitate peer learning. As in the OECD (Table 4.3) and a growing number of Western Balkan countries, BiH's indicators should address aspects of schooling that are most important to students' learning and development, as well as student outcomes.

Table 4.3. Common school quality indicators in OECD countries

Categories	Examples of indicators
Context	• Contextual information about a school – e.g. geographic location; number of shifts; extent of multi-grade classrooms • Contextual information about the student population – e.g. socio-economic situation; language spoken at home
Inputs	• School infrastructure and resources, financing, and human resources
Quantitative outcomes	• Results on external student assessments • Results on school-based assessments • Rate of absenteeism • Drop-out rate • Students' success rate in progressing from one year to the next • Graduation rate
Qualitative outcomes	• Students' acquisition of higher-order competences (in addition to those measured by assessments) – e.g. theoretical, communication or analytical skills • Students' social/emotional skills and well-being – e.g. attitudes; involvement in extra-curricular activities • Student, parent and staff satisfaction
Equity in outcomes	• Progress and outcomes for different student groups – e.g. students from minority backgrounds and students with special education needs
School processes	• Quality of instruction – e.g. teaching methods, including the use of student-centred approaches like formative assessment; the quality of teachers' interactions with students; content of teachers' lessons; materials employed • Instructional leadership and school management – e.g. staff management and appraisal; collaborative work and learning practices; processes to support the involvement of parents and the local community • School self-evaluation for improvement • Guidance and support for students – e.g. processes to promote equity; processes to support students with special education needs • Compliance with rules and regulations

Source: (Faubert, 2009[20]), *School evaluation: Current practices in OECD countries and a literature review*, OECD Education Working Papers, No. 42, OECD Publishing, Paris; (OECD, 2013[8]), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264190658-en.

This set of core indicators should focus, in particular, on dimensions for improvement that have been highlighted through international studies and new state-level education goals (Chapter 5). These indicators could be both qualitative and quantitative, but education actors in BiH may need to focus on the latter, at least initially, since they will be easier to collect and analyse. In developing indicators, actors could look to countries such as Brazil, which has a large, decentralised education system, or Romania or Colombia (Box 4.2). Areas of focus could include:

- **Outcomes related to student learning and progress.** In BiH, competent education authorities could agree to a number of indicators such as rates of student absenteeism, advancement and/or graduation rates, as quantitative outcomes of student progress. However, this review makes several recommendations about how BiH can address the lack of reliable data on student learning outcomes through the use of standardised tests, which would support this essential dimension of school quality (Chapter 2). This could become another indicator, particularly given that international studies suggest that students' learning outcomes are lower in BiH than in the OECD and other Western Balkan countries (OECD, 2019[21]). In the short term, indicators on learning outcomes will need to rely on school-based assessments, which should aim to measure the extent to which students in a particular school have mastered core competences.
- **Outcomes related to equity**. Competent education authorities could agree to a number of indicators that measure outcomes for students from minority backgrounds and students with special education needs. This would address the issue that Roma children are less likely to participate in education than other demographic groups in BiH (Chapter 1).
- **The school context and inputs that impact student outcomes**. For example, PISA 2018 found that, in BiH, students' geographic location (i.e. urban vs. rural) was associated with significant

differences in reading results, and that educational resources were reported as insufficient in many lower secondary schools (OECD, 2020[12]).

- **School processes that are important to students' learning and development**, like whether or not schools are conducting self-evaluations for improvement (Policy issue 4.2).

In the short to medium term, competent education authorities could use core indicators to regularly monitor at-risk schools. Over the longer term, they could use both core and optional indicators to structure school supervisions and/or external school evaluations. Optional indicators could be more qualitative, and similar to Colombia's Synthetic Index of Education Quality (Box 4.2).

Box 4.2. Indicators of school quality in different OECD member and partner countries

Brazil's Índice de Desenvolvimento da Educação Básica (IDEB) or Basic Education Development Index

Brazil's IDEB was developed in 2005 to increase accountability and provide a strong impetus for school improvement. It allows the country to identify schools or education systems whose students show low proficiency levels and to see changes in students' performance over time. IDEB is based on quantitative student outcomes from Brazil's 200 000 schools, including learning data from national assessments of Portuguese and mathematics in grades 4 and 8; assessment data for grade 11 students; and student flow data (i.e. promotion, repetition and graduation rates). The use of student outcomes that relate to both learning and promotion to the next grade is intended to ensure that schools are not incentivised to hold back students from the tested grades or encourage them to drop out of school. The federal government calculates IDEB scores at school, municipal, state or national levels from primary to upper secondary, and sets related targets which inform school improvement plans. A new IDEB by School (IDEB por Escola) platform allows users to combine IDEB 2019 results with context indicators for each school (e.g. infrastructure, resources and pedagogical organisation) and compare IDEB results by groups of schools with similar characteristics.

Romania's School Efficiency Index

Romania's Agency for Quality Assurance in Pre-University Education (ARACIP) calculates an efficiency index for each school to inform external school evaluations and school self-evaluations. The index indicates how a school's results compare to other schools functioning in similar conditions with similar resources. ARACIP began developing the index in 2009, piloted it in 1 023 schools across all levels in 2011, and then revised it and expanded its use to more schools in 2014. The index is based on:

- Context and input indicators: family background (e.g. the percentage of children from families with low income); education environment (e.g. school location in socio-economically disadvantaged area); infrastructure (e.g. availability of basic utilities); equipment and teaching aids; the level of ICT use in the school; and human resources (e.g. the percentage of qualified teachers).

and the following quantitative student outcomes:

- Participation: average number of absences per student; student drop-out rate; and rate of grade repetition.
- Results: the distribution of average classroom assessment marks at the end of the school year; average results on the grade 8 and baccalaureate national examinations; and average results in the competence certification exam for vocational schools.

Colombia's Índice Sintético de Calidad Educativa (ISCE) or Synthetic Index of Educational Quality

Since 2015, Colombia has used its ISCE to provide a clear and contextualised indicator of school quality. The ISCE provides a numerical indicator to measure the quality of education in schools by education level (primary, lower secondary and upper secondary). ISCEs score ranges from 1 to 10 (with 10 being the best result possible), and is composed of four components: i) school performance (40%), based on students' learning results in the country's annual national external assessment (known as SABER), in Language and Mathematics; ii) progress (40%), which reflects the progress of student learning in the SABER tests compared to the previous year; iii) efficiency (10%), based on the schools' approval rates; and iv) school environment (10%) based on information collected from context questionnaires given to students during the SABER tests (known as Associated Factors). This last component consists of two combined measures: classroom environment and monitoring of learning. At upper secondary level, this latter component is not calculated, and the efficiency component counts for 20% of the calculation. The ISCE provides the educational community and the general public with a simple (and therefore easy to interpret) yet contextualised and comprehensive indicator of education quality.

Source: (OECD, 2021[22]), *Education Policy Outlook: Brazil – With a Focus on National and Subnational Policies*, https://www.oecd.org/education/policy-outlook/country-profile-Brazil-2021-EN.pdf (accessed on 15 November 2021); (INEP; Ministéria de Educação; Governo Federal Brasil, 2013[23]), *Index of Development of Basic Education*, https://www.oecd.org/pisa/aboutpisa/3.%20Luiz%20Costa_June_2013%20-%20IDEB%20OCDE.pdf (accessed 12 November 2021); (OECD, 2011[24]), *Lessons from PISA for the United States, Strong Performers and Successful Reformers in Education*, OECD Publishing. *http://dx.doi.org/10.1787/9789264096660-en*; (Kitchen et al., 2017[25]), *OECD Reviews of Evaluation and Assessment in Education: Romania*, OECD Publishing, Paris, https://doi.org/10.1787/9789264274051-en.

Engage government bodies and stakeholders in the development process

While school quality indicators should be developed with experts in each competent education authority who are knowledgeable about schooling, the initiative should also engage government decision-makers, including the Ministry of Civil Affairs of BiH and the heads of each education authority. Engaging these actors should build a shared understanding of how the indicators could benefit BiH by contributing to school improvement, thus strengthening support for their use. In developing the indicators, competent education authorities, with the support of APOSO , should also gather input from a wide set of stakeholders, including the representatives of NGOs, the private sector, academia, parents, and school staff. This will ensure that the indicators reflect different perspectives and build collective ownership. School staff, in particular, will be more accepting if they are involved in the development process (Faubert, 2009[20]).

Develop plans to collect indicator data in ways in order to minimise onerous reporting tasks for schools. At present, some administrative units in this review require schools to provide additional information when they conduct school supervisions. A growing number of OECD countries use information stored in education management information systems (EMIS) for school evaluation and supervisions to reduce the reporting burden on schools. In BiH, a number of competent education authorities do not have the capacity to develop their own EMIS. To reduce the burden of data collection, competent education authorities should develop plans that identify how to compile data required for the school quality indicators in the most efficient way. These plans should outline, for instance, which data authorities can already access, and which additional data can be collected on a cyclical basis through existing EMIS or dedicated modules in a new limited EMIS (Chapter 5). As recommended in Chapter 5, competent education authorities should also make efforts to improve the quality of data, in order to ensure that judgements about school quality and comparisons between schools are reliable.

Recommendation 4.1.2. Use data from the school quality indicators to identify and support at-risk schools

Pedagogical institutes and their equivalents in competent education authorities are responsible for supporting schools. Although they face financial and capacity constraints, they are well positioned to fulfil this role. However, they do not currently use data to identify struggling schools – though this data could be – and, at times, is – produced through general school supervisions or external school evaluations. Competent education authorities should use the school quality indicators to identify schools that are struggling the most and direct more resources and targeted support towards them.

Develop a methodology for identifying at-risk schools, informed by a pilot

Competent education authorities will need to develop a risk assessment methodology in order to use the indicators to identify schools that most require support. This methodology could include:

- **Minimum expectations for each quality indicator and input**, such as minimum standards for student attendance and progression or a minimum level of basic school infrastructure.
- **Risk factors related to context indicators**, such as having a high concentration of students at greater risk of poor performance given their backgrounds (e.g. socio-economic status).

These thresholds could be based on analyses of data that education authorities already collect, as well as the results of a pilot in each participating administrative unit. The recommendation to incorporate a pilot into the development process builds on lessons learnt from the APOSO school evaluation toolkit project. Following that project, government actors reportedly did not support incrementally improving the toolkit, and ultimately it fell out of use. A pilot would help competent education authorities to establish minimum expectations for school quality, ensure that the indicators are fit-for-purpose, and address issues around the collection and analysis of data.

Provide more intensive hands-on support to at-risk schools

Competent education authorities should task pedagogical institutes or their equivalents with working closely with schools that are identified through the school quality indicators as at-risk. At present, they are already expected to provide technical support to schools, much of which focuses on pedagogy. In Brčko District, for instance, the pedagogical institution's regulated tasks include planning teachers' professional development (Chapter 3), advising on teaching methods, and helping schools to develop partnerships with the local community and support students with special education needs (BiH, 2021[10]). However, these activities are largely disconnected from school supervision results and are not targeted to at-risk schools.

Competent education authorities should establish guidance that clearly sets out how expert advisors should work with at-risk schools. Specifically, expert advisors should help these schools develop action plans that address areas where they are not reaching minimum expectations, and then work with school staff as they implement these plans. Expert advisors could, for example, provide coaching to school staff on different teaching, learning and school management practices and help to identify financial resources that would address school needs, such as continuous professional development grants (Chapter 3) or school improvement grants (Recommendation 4.3.2). To make sure that expert advisors can provide this support, competent education authorities may need to re-define their roles and invest in building their capacity (Policy issue 4.2).

The financial and capacity limitations of pedagogical institutes or their equivalents, should be considered in designing procedures to support at-risk schools. For example, expert advisors could make use of new electronic platforms to engage with a high volume of teachers and schools at relatively low cost. They could, for instance, use a platform that helps coach teachers in at-risk schools on using student-centred

teaching approaches (Chapter 3) or a new school improvement platform, which would identify measures to reduce drop-outs (Recommendation 4.3.2).

Introduce a formal networking programme to support at-risk schools

Competent education authorities should provide at-risk schools with opportunities to benefit from horizontal learning, which is a powerful support for school improvement (OECD, 2013[8]). At present, formal school networking programmes of this type do not seem to exist in the administrative units in this review. Competent education authorities should create networks by using results from the school quality indicators to pair schools that are at-risk with those that are doing well. Expert advisors in pedagogical institutes or their equivalents could support this networking by arranging meetings of school principals or school study visits. They could provide guidance to prepare model schools for their role and monitor the impact of networking activities on at-risk schools. In developing this initiative, competent education authorities could look to international examples of networking programmes such as a UNICEF initiative in Serbia. There, UNICEF's SHARE programme (Box 4.3) demonstrated the importance of adequately assisting both low- and high-performing schools to ensure that this relationship is constructive (Baucal and Pavlović Babić, 2016[26]).

Box 4.3. The UNICEF SHARE networking programme in Serbia

The SHARE project, a joint initiative between UNICEF, the Ministry of Education, Science and Technological Development of Serbia, the Centre for Education Policy (a research centre in Belgrade) and Serbia's Institute for Education Quality and Evaluation (IEQE), is the first initiative in Serbia aimed at creating learning communities and peer-learning between schools. SHARE aims to improve the quality of education by developing horizontal learning between schools and developing schools' and teachers' agency to learn and lead change in the education system. The initial phase of the project took place between 2015 and 2017, with 20 schools, 1 080 teachers and 12 665 students participating across Serbia. The project paired 10 schools that performed very well in the external school evaluation (score of 4), known as "model schools", with 10 schools that underperformed (score of 2 or 1), known as "SHARE schools".

The project used a reflective approach combining classroom observation and feedback on observed practice. Following the selection of participating schools, classroom visits were planned to support reflective practice. During this step, teachers, school principals and support staff from SHARE schools observed between 10 to 15 hours of teaching at model schools. Based on a pairing system, the majority of discussions between schools focused on classroom management, lesson planning, teaching techniques, student support, teamwork and preparing for external evaluation. To give constructive feedback during these peer-to-peer sessions, staff in the model schools received training on how to articulate, document and share their success with their paired schools. During the final school visits, SHARE schools were also given the opportunity to present their experience and examples of best practices, thus motivating self-reflection.

The SHARE project initiated and established mutual exchange of knowledge and best practices between schools. It provided schools with hands-on experience through its peer-to-peer-learning component. In addition, as a way to enhance the sustainability and long-term benefits of the project, a learning portal was created and shared amongst educators in Serbia. Moreover, 100 practitioners were trained to provide support for quality improvement in low-performing schools, creating a network of facilitators who have been integrated into the ministry of education as educational advisors linked to school administrations around the country.

The first phase of the project had a positive impact on the 20 participating schools and shows scope for growth and scaling up. A majority of participating schools have seen an improvement in six out of seven areas of quality measured by the external school evaluation. This improvement was mostly seen in the areas of teaching and learning, school ethos and organisation of work and leadership. More broadly, the project introduced participating staff to the concept of horizontal learning and encouraged teachers to work together without the fear of being judged by their peers. It also allowed them to practice new teaching methods and play a more active role in shaping their classroom and school practices.

Source: (UNICEF, n.d.[27]) *Dare to Share: Empowering Teachers to be the Change in the Classroom*; (European Commission, 2017[28]), *Networks for Learning and Development across School Education*, https://www.schooleducationgateway.eu/downloads/Governance/2018-wgs5-networks-learning_en.pdf (accessed on 19 November 2021).

Consider publishing summary reports instead of individual school results

Education actors in BiH should focus on using the school quality indicators to pave a constructive path to school improvement. While competent education authorities may wish to publish individual schools' results, this could make the indicators more contentious, and thus more difficult to implement. It could also have negative consequences for schools, creating undue pressure on school staff and penalising those who operate in difficult circumstances. A number of OECD member and partner economies, including Shanghai, have opted not to publish individual school results to avoid these problems. In lieu of individual school results, education authorities may wish to publish regular summary reports that provide a descriptive overview (i.e. not just scores or ratings) of what schools are doing well and what they need to improve. This is a common practice in OECD countries (OECD, 2013[8]), and should build a better understanding of school quality in relation to education goals among parents and the broader public.

Recommendation 4.1.3. In the long-term, consider introducing external school evaluations in all administrative units

Using the indicators recommended above will help competent education authorities to monitor school quality, but it cannot replace regular school evaluations (OECD, 2013[8]). In OECD and EU countries like Romania, the Netherlands and Ireland, school quality data supplement external school evaluation processes but are not a replacement (European Commission/EACEA/Eurydice, 2015[16]). Over the long-term, competent education authorities should consider developing BiH-level or authority-level external school evaluations. These evaluations would be more standardised than general school supervision practices, and more comprehensive than baseline monitoring against school quality indicators. If designed well, these evaluations could have a greater impact on school improvement than other types of school monitoring.

Replace general school supervision with external school evaluation

Competent education authorities could discuss their readiness to introduce external school evaluations at future meetings of the Conference of Education Ministers (Chapter 5). They should consider developing a school evaluation framework at the BiH-level or authority-level that includes the following elements, which are common in OECD countries or recommended in the research literature:

- **Independent evaluators**. Many OECD and European countries have established independent school evaluation agencies to build professional expertise in one body and ensure that evaluations are fair and credible. For example, in New South Wales, a state in Australia's decentralised education system, the National Education Standards Authority (NESA) serves as an independent statutory authority with responsibilities for conducting school inspections. NESA operates under the direction of a governing board that is separate from the state-level government (NESA,

2021[29]). Internationally, school inspectorates, like those in nearby countries (e.g. Bulgaria and the Slovak Republic), may be funded by the government but are independent in their methodology and reporting. This independence generally means that external school evaluations are objective and free from political influence (OECD, 2013[8]). In the long-term, competent education authorities in BiH with sufficient capacity could establish their own inspectorates – either alone or in partnership with other authorities. Alternatively, education actors in BiH might consider establishing a state-level inspectorate, if education authorities agree to the expansion of the state's authority. To support objectivity in the short- to medium-term and avoid conflicts of interest, personnel responsible for supporting a school should not be responsible for its supervision or evaluation.

- **More qualitative school quality standards** that focus on the aspects of the school environment that are most important to students' learning and development. These include the quality of teaching and learning and the quality of instructional leadership, as well as measures like students' cognitive and social/emotional outcomes (OECD, 2013[8]). Qualitative standards will facilitate a deeper review of school processes and should thus be more helpful for improvement purposes (ERO, 2016[30]). For example, in evaluating the quality of instructional leadership, external school evaluations could not only confirm whether schools are conducting self-evaluations for improvement but also look at schools' self-evaluation processes to provide advice on how they could be improved. This is a common practice in OECD countries to help build schools' self-evaluation capacity (Policy issue 4.3) (OECD, 2015[7]).
- **School evaluation procedures that prioritise struggling schools.** In EU countries, an external school evaluation will generally comprise: i) a pre-inspection, during which evaluators gather initial information about a school; ii) a school visit that focuses, in particular, on the quality of instruction, and; iii) the preparation of an evaluation report (European Commission/EACEA/Eurydice, 2015[16]). Schools are commonly evaluated once every three years or more in OECD countries (OECD, 2015[7]). However, some countries, like New Zealand, the Netherlands and Ireland, have introduced differentiated inspection cycles in which low-performing schools are evaluated more frequently than high-performing schools. Competent education authorities could consider a similar model, to focus resources and attention on schools that need the most support to improve.
- **School evaluation results that balance improvement and accountability**. Features of external school evaluation systems that support school improvement include clear feedback on schools' strengths and weaknesses, feasible recommendations, the requirement to produce action plans, and supportive follow-up. To support accountability, features include the public reporting of evaluation results (Faubert, 2009[20]). As advised for school monitoring in Recommendation 4.1.2, authorities should use external school evaluation results to support school improvement. Over the longer term, competent education authorities might also consider publishing school evaluation reports that provide an overview of a school's practices in relation to quality standards and key findings from the evaluation. This will address a lack of school transparency in BiH, which can feed public concerns about corruption in the education system (Gabrščeк, 2016[4]).

Policy issue 4.2. Developing the expert advisor and school leader roles

The administrative units in this review will require strong system and school leadership to improve school quality. At present, pedagogical institutes and their equivalents are understaffed and have very broad mandates. Expert advisors are often responsible for monitoring and supporting the same schools, which can create conflicts of interest and inhibit the development of supportive working relationships with school staff. Many of the pedagogical institutes covered in this review expressed a need for training to develop expert advisors' capacity but reported that this is not available. Positively, some authorities plan to professionalise the school leadership role. However, all have yet to develop key elements of professionalisation, such as school leadership standards, initial training requirements and principal

appraisal processes. Furthermore, principal appointments remain vulnerable to politicisation despite changes to selection procedures over the past decade. While there are positive examples of supports for school leaders, such as the Body of Pedagogues' School of Principals in Republika Srpska which provides counselling and advice, there are also gaps in principals' continuous professional development. A number of school leaders in BiH reported that they have not been offered training for several years, while others reported that available training is not relevant to their needs. Competent education authorities will need to address these gaps in order to develop the expert advisor and school principal roles.

Recommendation 4.2.1. Strengthen the school support capacity of expert advisors

Pedagogical institutes or their equivalents have a large number of responsibilities, from policymaking to school monitoring to support, and limited resources to undertake them (World Bank, 2021[17]). Competent education authorities will need to address the workload and staffing challenges that impede the institutes' work. To enable expert advisors to focus on supporting schools, education authorities will also need to adjust their responsibilities and ensure that they have the capacity to fulfil them.

Dedicate staff at the canton, entity and district level to supporting school improvement and self-evaluation

Competent education authorities should create expert advisor positions in pedagogical institutes or their equivalents, who would be responsible for providing support to at-risk schools and helping schools with self-evaluation. At present, most expert advisors focus on providing support and control for specific subject areas or for different school levels, and at least one authority in this review also has advisors that work with school leaders. Competent education authorities should create new job profiles for dedicated school improvement experts and re-orient the mandates of some expert advisors, particularly those who already work with school leaders, to take on these roles. Authorities could look to countries like Wales (United Kingdom), where local authorities and regional education consortia employ "challenge advisors" who work with school leaders to help schools improve, as well as specialists in different teaching and learning areas (Welsh government, 2014[31]). Like in the Canadian province of Ontario, competent education authorities might also consider focusing the efforts of these experts towards initiatives that would support state- or authority-level education goals (Box 4.4). As recommended in Chapter 3, competent education authorities could create similar roles for teachers in order to co-ordinate system- and school-level improvement efforts. In the medium- to long-term, competent education authorities could open job competitions to recruit school leaders or teachers at the higher levels of their career path (particularly those with experience in school development or in different education priority areas) to become new school improvement experts.

Box 4.4. Leadership roles at the system and school level in Ontario, Canada

In 2003, the Ontario Ministry of Education implemented the Student Success / Learning to 18 Strategy to increase graduation rates and provide all Ontario students with the tools to successfully complete their secondary schooling and reach their post-secondary goals. The strategy was introduced in phases, beginning with capacity development to promote strong leadership in schools and school boards and to change school culture to achieve long-term systemic improvement.

- At the school board level, it created a new senior leadership role, the Student Success Leader, who was responsible for co-ordinating efforts in their district and networking with Student Success Leaders in other districts to share strategies.
- At the school level, it created the Student Success Teacher to provide support to students at risk of dropping out. In addition, secondary schools established Student Success Teams, consisting of school leaders, Student Success Teachers and staff. The teams tracked and addressed the needs of students who were disengaged, and also worked to establish quality learning experiences for all students.

According to an evaluation of the Student Success / Learning to 18 Strategy, developing good leadership at all levels – Ministry, school board, and school – coupled with extensive capacity building were key to the success of the reform. In 2011/12, Ontario had a high-school graduation rate of 83%, a 15-percentage point improvement over the period 2003/04.

Source: (OECD, 2015[32]), *Education Policy Outlook: Canada*, https://www.oecd.org/education/EDUCATION%20POLICY%20OUTLOOK%20CANADA.pdf (accessed on 8 December 2021) ; (OECD, 2012[33]) *Lessons from PISA for Japan*, http://dx.doi.org/10.1787/9789264118539-en.

Address issues with capacity and understaffing

To ensure that expert advisors can provide sufficient support to schools, competent education authorities will need to address capacity constraints in pedagogical institutes or their equivalents as a matter of priority. This is a problem that affects all competent education authorities in this review. For example, one of the largest pedagogical institutes in BiH informed the OECD review team that they lack sufficient staff because their mandate had become increasingly complex. Smaller administrative units reportedly have even fewer staff – not enough to provide support to schools for different curriculum subject areas – and have a heavy workload related to areas where they lack capacity, such as legal work. At the same time, training, which could help expert advisors be more effective in their roles, is scarce. Authorities could consider the following measures to address these challenges:

- **Review the workload of pedagogical institutes and their equivalents.** In many OECD member and partner countries, separate institutions are responsible for the different tasks that fall within pedagogical institutes' mandate. Over the long-term, competent education authorities should consider establishing different agencies – like school inspectorates – to take on some of these responsibilities (Recommendation 4.1.3). In the short-term, competent education authorities should identify ways to reduce the workloads of expert advisors and enable them to focus on school support. For example, this could involve re-distributing their policymaking duties to other staff. Furthermore, expert advisors who support schools should not also be tasked with evaluating them (Recommendation 4.1.3). Other recommendations in this report would help to reduce expert advisors' workload. For instance, authorities could delegate the appraisal of teachers for career advancement to external contractors (Chapter 3).

- **Consider increasing the number of staff and/or partnering with NGOs.** Alongside reviewing the workload of expert advisors, authorities should review the staffing complement of pedagogical institutes and their equivalents and consider hiring more expert advisors, particularly new school improvement experts, to supplement existing staff. Given that expert advisors' remuneration in some administrative units has not been sufficient to attract experienced professionals, further limiting pedagogical institutes' capacity (World Bank, 2021[17]), authorities may need to consider salary increases. Another solution could be to partner with NGOs to help schools conduct self-evaluations (Recommendation 4.3.2) and work towards education goals. This could offset shortfalls in staff and capacity.
- **Provide opportunities for expert advisors from different jurisdictions to work and learn together**. Expert advisors from different jurisdictions could form a network or networks in order to exchange experiences and collaborate, either in-person or online. To improve their effectiveness, this initiative could discuss common challenges facing schools and different approaches to support them. The Conference of Education Ministers could discuss the creation of this network and other potentially useful collaborations at one or several annual meetings recommended in Chapter 5.
- **Offer training to build expert advisors' capacity to support schools**. Competent education authorities should ensure that expert advisors use new online learning platforms for teachers and schools for their own capacity building (Chapter 3 and Recommendation 4.3.2). In addition, authorities should create a mentorship system that matches new expert advisors with experienced colleagues. Introducing these types of electronic and job-embedded professional learning opportunities provide lower-cost solutions for supporting schools.

Recommendation 4.2.2. Transform the school principal role to strengthen instructional leadership

During past education reform efforts, competent education authorities committed to appointing school leaders using fair and democratic procedures and providing them with relevant training (BiH, 2002[1]). More recently, different competent education authorities have signalled their intent to strengthen school leadership, in some cases, because they plan to provide schools with greater autonomy in the long-term. However, in BiH, as in many other Western Balkan economies, the appointment of school leaders is highly vulnerable to political interference and limited training opportunities are available (OECD, 2020[12]). To improve school quality, it will be essential for competent education authorities to ensure that the most qualified candidates are selected, and that they receive regular opportunities to build their instructional leadership capacity.

Revise school principal appointments to remove political influence

All education authorities that were interviewed for this review reported that the school leader hiring process remains influenced by politics even though candidates need to fulfil regulated requirements. For example, even in jurisdictions where political appointees do not directly select candidates, they reportedly influence the selection committees' decisions. While challenging, education authorities should work to de-politicise recruitment in order to build a stronger cadre of school leaders. Key steps could include:

- **Introducing school leader certification requirements, including mandatory training**. This will ensure that all candidates have a grounding in school leadership before taking on the role. With the support of a state-level body or NGO, competent education authorities should develop professional standards for school leadership to inform the contents of training and other certification requirements (see below). Training should provide practical preparation in all areas of school leadership, including planning and implementing school improvements. Like North Macedonia and Albania, education authorities could also require candidates to pass an exam to demonstrate their readiness for school leadership (OECD, 2020[12]) (Box 4.5).

- **Enhancing selectors' impartiality**. Competent education authorities should also apply EC recommendations for public administration reform in BiH to the selection of principals. This could include, for instance, establishing independent selection committees for principal appointments and using transparent procedures to appoint members to those committees (European Commission, 2019[34]). At present, school board members are often involved in the principal recruitment process, but their selection is also politicised (Gabršček, 2016[4]). Education authorities might consider involving an impartial actor in appointment procedures and making decisions using a confidential majority vote. In the Slovak Republic, for example, an inspector from the State Schools Inspectorate provides an objective perspective on each principal selection committee, and some school boards select principals based on confidential votes for their preferred candidate (Santiago et al., 2016[35]). At the state level, education actors could develop advice on how all actors involved in selecting individuals for public sector roles could maintain professionalism and impartiality.
- **Reviewing and revising principal appointment procedures to ensure that they are merit based**. Competent education authorities should, for example, revise their procedures to include transparent selection criteria that are based on standards of school leadership. Competent education authorities could also develop guidelines to help selection committees assess how well candidates' knowledge, skills and attitudes align with the standards.

Introduce collaborative learning opportunities and appraisals to support school leadership development

Competent education authorities should follow through with a recommendation of the Council of Ministers of BiH in its 2020 Roadmap for Inclusive Education, that all principals should receive collaborative learning and mentorship opportunities (Council of Ministers of Bosnia and Herzegovina, 2020[6]). This type of peer learning is particularly helpful to school leaders (Pont, Nusche and Moorman, 2008[3]). Some authorities, like Republika Srpska, have already established networks for principals, but these are used primarily for administrative purposes, such as staffing decisions. Pedagogical institutes and their equivalents should, instead, create networks for school leaders that are oriented towards sharing school improvement challenges and strategies. Education authorities should also develop new mentorship programmes that pair new principals with their experienced colleagues for coaching and feedback. This would be similar to initiatives in other European countries such as Slovenia and Estonia (Pont, Nusche and Moorman, 2008[3]).

Positively, Republika Srpska and West Herzegovina Canton have developed or plan to develop principal appraisal procedures. At present, however, none of the education authorities covered in this review implement principal appraisals. This is a gap considering that, if designed well, appraisal processes can help build principals' competences. Education authorities should consider establishing methodologies for regular principal appraisal, through which expert advisors can assess school leaders' performance against standards for their role. The main outcomes of this process should be feedback and the identification of relevant professional learning activities to address principals' needs (Pont, Nusche and Moorman, 2008[3]). Monitoring activities based on the school quality indicators recommended above will yield information that is also relevant to principal appraisal. Competent education authorities should ensure that any negative results from regular principal appraisals or school quality indicators lead to remedial measures to give school leaders opportunities to improve their practices (e.g. improvement plans, further evaluations) (ibid).

Consider establishing a body or bodies to professionalise the school leadership role

To overcome resource and capacity constraints, authorities at the state or canton, entity and district level could seek support from an NGO to set up a body to professionalise the school leadership role. This was an approach taken in Albania, for instance, when it established its School of Directors in 2017 (Box 4.5). As in Albania, this body could take responsibility for developing school leadership policies and

programmes, including standards setting out expectations for the role, initial training, certification procedures, and relevant continuous professional learning opportunities. If this body is established at the competent education authority level, it will be important for authorities to evaluate the impact of their efforts and share their experiences in order to encourage others to develop their own measures to professionalise school leadership.

Box 4.5. Albania's School of Directors

Albania's Ministry of Education, Sport and Youth established a School of Directors, a non-profit centre for educational leadership, with the support of the Albanian-American Development Foundation (AADF) in 2017. The School of Directors had been planned since 2012 but took time to establish due to a lack of funding, which is now being provided by the AADF for its first ten years of operation. One of the first tasks of the School of Directors was organising a needs assessment study and a review of the legal framework for the principal role to inform the development of curriculum for pre-service training. Their vision is to develop well-qualified leaders who positively impact the school environment and beyond and directly improve the quality of education in Albania.

At present, the School of Directors' main activities include testing and certifying candidates for school leadership positions; organising, implementing and monitoring pre-service training and continuous professional development for aspiring and current school leaders; and working with other educational institutions in Albania to improve school leadership policies and standards. Their compulsory pre-service training programme, which was accredited by the government in 2020, addresses instructional leadership around the following topics:

- vision and strategy of school development and change management
- effective leadership in curriculum development, teaching and learning
- effective management of staff, resources and finances
- directing transformational changes in the school in accordance with the legal framework for the Albanian education system
- developing collaborations with parents and the community
- professional development of staff to be a pedagogical leader.

Source: (School of Directors, 2021[36]), *Shkolla e Drejtorëve [School of Directors]*, https://www.csl.edu.al/, (Accessed 1 December 2021); (Maghnouj et al., 2020[37]), *OECD Reviews of Evaluation and Assessment in Education: Albania*, https://doi.org/10.1787/d267dc93-en.

Policy issue 4.3. Using regular self-evaluation to help all schools improve their practices

Research shows that school self-evaluation, accompanied by appropriate support, is one of the most effective ways for a country to improve the quality of its education system (SICI, 2003[38]). Republika Srpska and West Herzegovina Canton now require all schools to conduct self-evaluations on an annual basis for development planning purposes. However, schools in other jurisdictions covered in this review do not conduct self-evaluations. Furthermore, research suggests that a majority of BiH schools lack an understanding of quality education, as well as the resources and drive to change their practices (Branković et al., 2016[9]). All competent education authorities should introduce self-evaluation procedures to foster a culture of continuous improvement in instructional practices and establish more student-centred learning environments. This will be essential in BiH, given that resource constraints may preclude administrative

units from conducting regular external school evaluations for some time. Within this context, schools must be able to identify and address their own challenges to effectively develop students' core competences. To ensure that self-evaluations lead to improvement, authorities will need to build schools' capacity to review their practices, in particular the capabilities of school leaders (Policy issue 4.2). They will also need to provide resources to help schools understand what they need to change, and provide assistance to act on results.

Recommendation 4.3.1. Encourage schools to conduct regular self-evaluations using the indicators of school quality

In the jurisdictions where school self-evaluation is not mandatory, competent education authorities should consider using the school quality indicators to help schools evaluate their own practices. These indicators would signal the key priorities and outcomes that schools should be working towards. Education authorities could deploy practices used in OECD and EU countries to ensure that schools conduct self-evaluations for their own development rather than simply to fulfil external monitoring requirements. These include integrating self-evaluation within schools' regular development planning cycle and giving schools some flexibility to adapt the process to their needs. Over the medium-term, authorities should make school self-evaluation a mandatory complement to school monitoring or inspection. In doing so, authorities will need to make sure that schools can effectively review their own practices and take responsibility for their own continuous improvement – particularly since they may not be able to introduce regular qualitative external school evaluations for some time.

Introduce school self-evaluation as an integral part of the regular school development planning cycle

Competent education authorities should develop a self-evaluation methodology that encourages school staff to internalise quality standards and continuously seek ways to improve teaching and learning practices (OECD, 2013[8]). Without this internalisation, schools may seek to comply with external expectations for school quality but not drive their own development. One way that OECD countries have worked to build a culture of evaluation in schools is to make school self-evaluation an integral part of the regular school development planning cycle.

At present, most competent education authorities in this review require schools to create annual development plans, but these are not informed by self-evaluation results. By contrast, in most OECD and EU countries where self-evaluation is mandatory, this process must be conducted annually, and many also require that results are used for school development plans (European Commission/EACEA/Eurydice, 2015[16]; OECD, 2015[7]). The Canadian province of Newfoundland and Labrador, for instance, embedded self-evaluation into the strategic improvement planning cycle for schools through a classic "plan-do-check-act" approach, which ensures that results feed into school development policies (OECD, 2013[8]) (Box 4.6. School self-evaluation steps and procedures in Newfoundland and Labrador, Canada

Box 4.6. School self-evaluation steps and procedures in Newfoundland and Labrador, Canada

For a number of reasons, Newfoundland and Labrador have been particularly successful in implementing a School Improvement Program. Historically, they had schools working on models of improvement as early as 1986 and they did a pilot project and study in 1995, adopting a model revised from that experimentation in 2004. However, senior department officials attribute the programme's effective implementation to the support system and the capacity-building initiatives it put in place.

School self-evaluation is part of each school's improvement planning cycle. While there are many methods to gather, record, analyse, and make informed decisions, the steps below have been field-tested in schools and have been found to be effective. A timeline is also suggested for each of the steps. It is recommended that the Internal Review component be completed within a 5-month period, though this is sometimes contingent upon the nature and culture of the school.

- Step one: Establish a school development (leadership) team
- Step two: Gather and organise relevant data according to criteria statements
- Step three: Establish data recording and analysis teams
- Step four: Record and analyse the data
- Step five: Report on data and critical issues
- Step six: Goal identification

Source: (Fournier and Mildon, forthcoming[39]), OECD Review on Evaluation and Assessment Frameworks for Improving School Outcomes: Country Background Report for Canada, Council of Ministers of Education, Canada (CMEC). (OECD, 2013[8]), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, OECD Reviews of evaluation and assessment in education, OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264190658-en.

Give schools the flexibility to adapt self-evaluation to their needs

Competent education authorities should require schools to use core school quality indicators for their self-evaluations, but also give them freedom to select other indicators that relate to their specific context and goals. In most OECD countries, schools have some flexibility to adapt self-evaluations to their needs (OECD, 2015[7]). Research shows that this helps to integrate self-evaluation into the regular development activities of schools (Chapman and Sammons, 2013[40]). This recommendation is relevant to all jurisdictions in this review, including Republika Srpska and West Herzegovina Canton, where schools should be able to go beyond prescribed self-evaluation criteria.

Make sure that school self-evaluation involves all staff and engages stakeholders

Competent education authorities should describe who should be involved in school self-evaluation in their methodologies. For example, methodologies should state that the principal, pedagogues and other professional associates, teachers at higher levels of their career (such as advisors or senior counsellors) and those leading improvement areas in their school (Chapter 3) lead this exercise. To make sure that schools internalise self-evaluation and to gather multiple perspectives, the exercise should seek input from all staff. Moreover, schools should gather input from stakeholders, including parents, students and representatives of the local community. This will encourage schools to be responsive to stakeholders' needs and also counteract a lack of transparency in school functions (Gabršček, 2016[4]).

Recommendation 4.3.2. Provide guidance and resources to help schools lead their own improvement

Competent education authorities will need to provide guidance and resources to help schools self-evaluate and apply improvement measures. This should include, as a priority, school self-evaluation manuals and training, as well as information about effective school practices. Some of these supports could be developed at the state level so that schools in jurisdictions that lack resources can also work towards their improvement.

Develop self-evaluation manuals and relevant resources

Schools need guidance to conduct self-evaluations, especially when the process is first introduced. Competent education authorities should consider developing some supports that are common in OECD and EU countries:

- **A practical school self-evaluation manual**. The manual should provide, for instance, a brief overview of the methodology and the indicators that schools should use, including descriptors of what good school quality looks like for each indicator, and it should also propose possible sources of evidence (e.g. classroom observations). In addition, the manual should include a simple list of prompting questions to help schools determine how they are doing in relation to the indicators (e.g. "How good is our school?", "How can we make it better?", "Are teachers' skills being put to good use?", and "How good is learning and teaching in our school?") (Riley and Macbeath, 2000[41]). To develop this manual, competent education authorities could look to Republika Srpska's professional instructions for self-evaluation as well as the manuals that New Zealand's Education Review Office has created. For example, the latter includes *Internal Evaluation: Good Practice*, which presents a detailed description of what effective self-evaluation is, what it involves, and how self-evaluation can lead to improving student outcomes (ERO, 2015[42]).
- **School self-evaluation tools and templates that schools can easily access**. For example, some German Länder (states) have developed questionnaires and other evidence-gathering tools or self-evaluation report templates for schools to use (European Commission/EACEA/Eurydice, 2015[16]). Lithuania has also developed an online platform for this purpose. "IQES online Lietuva" provides self-evaluation instruments that schools can customise, as well as advice and information about the self-evaluation methodology (ibid). While quality standards should serve as the primary basis for self-evaluations, schools can also explore supplementary self-evaluation tools that are widely available and cover a variety of targeted areas (Box 4.7).

Box 4.7. Assessing the use of digital technology in schools

While pre-established indicators of school quality should serve as the core basis for all external and self-evaluations, school leaders can supplement these processes by using other evaluation tools that are relevant to the needs and interests of their schools. For example, the European Union's Self-reflection on Effective Learning by Fostering the Use of Innovative Educational Technologies (SELFIE) tool was designed specifically to help schools embed digital technologies into teaching, learning and assessment processes. Developed with a team of experts from education ministries, research institutes and schools across Europe, the SELFIE tool asks teachers, school principals and students about how digital technology is used in their schools and generates fully anonymised reports of the results. Such information can help schools reflect more actively on how technology influences their policies and performance, a topic that has become especially important since the start of the COVID-19 pandemic and the increased use of online and hybrid learning environments. However, such tools should not replace comprehensive, standards-based school evaluation processes.

Source: (OECD, n.d.[43]), Smart data and digital technology in education: Learning Analytics, AI and Beyond https://www.oecd.org/fr/education/ceri/smart-data-digital-technology-education-learning-analytics-ai.htm (accessed on 8 February 2022); (European Union, n.d.[44]), About SELFIE, https://education.ec.europa.eu/digital-education-free-self-reflection-tools/schools-go-digital/about (accessed on 8 February 2022).

Provide training and external support to help schools conduct self-evaluations

OECD countries with decentralised education systems, such as Australia and Canada, have found that school self-evaluation is most effective when assisted by significant levels of support from state or regional regulatory bodies (OECD, 2013[8]). In addition to manuals and other resources, education authorities should offer other supports that are common in EU countries, such as training and external specialists (European Commission/EACEA/Eurydice, 2015[16]). For example, each authority could provide self-evaluation workshops or online modules for principals and school staff on key areas of self-evaluation, such as how to gather evidence (e.g. using classroom observations, interviews and questionnaires), how to analyse data, and how to develop school improvement plans (OECD, 2013[8]). In developing and implementing this training, competent education authorities may need support from a state-level body or an NGO to overcome financial and capacity constraints. For instance, competent education authorities might consider supporting the creation of a new school leadership body or bodies, which would take responsibility for training new principals in self-evaluation as part of their mandatory initial preparation (Policy issue 4.2). Competent education authorities might also decide to work together and with APOSO to jointly develop electronic school self-evaluation training modules for a new online platform (see below).

Authorities could also ensure that each pedagogical institute or their equivalents has expert advisors who can provide self-evaluation coaching to schools that are struggling to review their practices or create development plans (Recommendation 4.2.1). In North Macedonia, for example, the Bureau for Educational Development, a central public body that has similar functions to the pedagogical institutes, provides advisors and training on school self-evaluation upon schools' request (European Commission/EACEA/Eurydice, 2015[16]). In BiH, pedagogical institutes or their equivalents could also offer this type of support in partnership with NGOs.

Create an online platform to support school improvement

Education actors in BiH should create a platform that provides resources to help schools improve their practice in line with the school quality indicators. For instance, competent education authorities, working together with APOSO's support, may consider expanding a new online learning platform for teachers

(Chapter 3) to also provide resources to support whole-of-school improvement. While competent education authorities could develop their own websites, this platform would be a cost-effective way to support school improvement across BiH, and it would be particularly beneficial to jurisdictions that face resource and capacity constraints. Education authorities and APOSO could jointly determine the specific contents of the platform. The platform could provide, for instance, summaries of research and case studies on effective school practices, akin to Scotland's *National Improvement Hub* (Education Scotland, 2021[45]). Specific topics that might be covered in the BiH context include effective student-centred instructional practices and measures to reduce school drop-out. Competent education authorities might also decide that there is value in addressing school self-evaluation practices, in order to reduce the need for individual jurisdictions to develop their own training resources (Recommendation 4.3.1). APOSO and education authorities could collaborate with university researchers or NGOs to develop these resources. One good example of this partnership is the "Good School Practices" project, which the Open Society Foundation implemented in 2014-15 (Branković et al., 2016[9]). In response to calls for proposals, this project identified 21 innovative approaches to education (Branković et al., 2016[9]).

Promote schools that have made progress or are doing well in relation to different indicators.

In addition to sharing good school practices on the online platform recommended above, competent education authorities could also identify schools that are making progress in relation to the school quality indicators and showcase them publicly on their websites. Highlighting schools in this way would constitute a reward for their hard work and also encourage other schools to work towards their own improvement. It will be particularly important – and encouraging for other schools – to recognise the accomplishments of schools that are operating in low socio-economic areas or other difficult contexts (Baucal and Pavlović Babić, 2016[26]).

Consider introducing targeted school improvement funding grants in the medium- to long-term

Schools in BiH lack resources, which limits their capacity to improve their practices. By implementing the measures recommended in this chapter, such as the school improvement platform and hands-on support from expert advisors, competent education authorities will provide schools with indirect financial support for improvement. In the medium- to long-term, authorities might also consider providing schools with direct financial support in the form of school improvement grants. With this type of programme, schools could submit proposals for funding to support improvement initiatives as part of their school development plans. The allocation of grants could favour initiatives that advance BiH-level or authority-level education goals. To support equity, competent education authorities could prioritise proposals from schools that are identified as at-risk through the school quality indicator exercise, or that face difficult circumstances (for instance, being located in a poorer socio-economic area). For accountability, competent education authorities should require schools to report how they have spent the funds and the impact that this investment has had. As with the continuous professional development grant programme recommended in Chapter 3, a school improvement grant could be implemented at either the BiH-level or entity-level or competent education authority-level. It should likely be implemented with international actors, to ensure a sufficient supply of external funding.

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5 Enable competent education authorities to strengthen system evaluation and improve co-ordination

Education stakeholders in Bosnia and Herzegovina have taken steps to establish some of the basic building blocks needed to monitor and evaluate education policy and guide system improvements. However, major gaps in system evaluation frameworks remain, namely the availability of comparable data on learning outcomes, which is lacking in most jurisdictions. This chapter presents possible pathways that competent education authorities and other BiH actors could take to strengthen collaboration and co-ordination in the education sector, as well as increase the use of evidence for planning and policy development.

Introduction

Education system evaluation is central to improving educational performance. System evaluation provides governments and other stakeholders with information to formulate effective policies, and reinforces accountability for meeting high-level education goals. Bosnia and Herzegovina (BiH) has taken steps to establish some fundamental components of system evaluation but there are major gaps in the country's system evaluation framework that prevent the government and other stakeholders from effectively monitoring – and through this, improving – system performance.

In Bosnia and Herzegovina (BiH), the governance of education is highly complex and decision-making power in the area of school education has been delegated to twelve competent education authorities (CEA) at the entity, canton and district level (see Chapter 1). This arrangement provides the Republika Srpska (RS), the 10 cantons of the Federation of BiH (FBiH) and the Brčko District with more autonomy to direct education policy. However, it also creates particular challenges for monitoring and improving quality. While competent education authorities in the country have defined some goals for their education systems, the majority covered by this review lack adequate resources and quality data to translate these goals into concrete implementation plans and measurable objectives.

This chapter recommends a set of measures that could help competent education authorities in BiH to build a more coherent direction for system improvement and strengthen system evaluation through greater collaboration and co-ordination. In particular, it recommends ways to produce richer, more comparable data to support a technical dialogue around the performance of different education systems in BiH. The chapter also recommends initiatives to intensify co-operation and improve peer learning so that good practices and tools can be scaled across the country. Implementing these reforms could enable BiH's education authorities to focus more effectively on improving education outcomes for students, especially in light of the negative consequences caused by the COVID-19 pandemic.

Key features of system evaluation in Bosnia and Herzegovina

Education system evaluation is essential to improve educational performance. A robust framework for system evaluation involves defining goals, establishing tools to provide reliable data on the system's inputs, outputs and outcomes, and conducting regular reviews of system performance. Through this framework, governments provide important accountability information to the public and education authorities, and periodically review whether policies are meeting their ascribed goals and how education needs might be evolving. Education system evaluation is thus a critical lever to ensure that education systems deliver high-quality instruction, and that public resources are well spent. BiH has taken steps to produce richer data on its education systems and to set strategic directions for improvement. However, there are major gaps in the country's system evaluation frameworks (Table 5.1).

Table 5.1. System evaluation in Bosnia and Herzegovina

Reference documents for vision and goals of education	Tools	Body responsible	Outputs
Bosnia and Herzegovina has a state-level strategic document on vocational education and training (VET) and a platform for early childhood education and care (ECEC). However, no state-level strategy exists for general schooling.[1]	Administrative data	Education ministries (or equivalent) of each administrative unit and the Agency for Statistics of BiH (BHAS)	BHAS compiles education statistics on its website as an Excel document with ten years of time series data (2010-20) on the number and sex of enrolled students and teachers in different ISCED levels (1-7). BHAS also provides annual statistical bulletins in PDF format on different education stages, these include more detailed data on participation, as well as some charts.
	External standardised assessment of learning	Education ministries (or equivalent). Three jurisdictions currently have this tool (RS, Sarajevo and Tuzla); only one (RS) is designed to support system monitoring	BiH does not conduct a state-level external assessment. The jurisdictions that use this tool do not compile public reports based on aggregate results.
All administrative units have a development strategy that includes some education goals. Sarajevo Canton and RS also have standalone education strategies, and Una Sana Canton and West Herzegovina Canton are developing these.	International assessments	Agency for Pre-school, Primary and Secondary Education (APOSO)	Trends in International Mathematics and Science Study (TIMSS) Grade 8 (2007) and Grade 4 (2019); PISA (Programme for International Student Assessment) (2018)
	School evaluations	Pedagogical Institutes and equivalents of BiH administrative units	With the exception of RS, the respective and Pedagogical Institutes or equivalents do not compile reports on the quality of education in schools (based on comprehensive and thematic inspections).
	Policy evaluations	No established process	No established process; some reflection is included in the formulation of development strategies.
	Reports and research	APOSO (state level) and Pedagogical Institutes and equivalents (canton/entity/district). Posavina and Central Bosnia cantons do not have a Pedagogical Institute; Canton 10 shares a Pedagogical Institute with West Herzegovina Canton.	No overall report on the education system. Thematic research and analysis only appears to be compiled on an ad hoc (and irregular) basis.

Source: (BiH, 2021[1]), Country Background Report for the OECD Review of Evaluation and Assessment in Education: Bosnia and Herzegovina, Unpublished.

Competent education authorities have taken steps to establish goals for system improvement

Most OECD countries have established system-wide education goals, to provide a coherent direction for education reform and an anchor against which performance can be assessed. In BiH, some administrative units have set specific goals for the education sector, while others only have capacity to carry out administrative functions. There have been past efforts to set common directions for education policy at the country level, recognising that this could help BiH to fulfil its international commitments, align education policies to facilitate greater student mobility (among other benefits), and establish baseline standards for learning. However, these efforts have been hampered by an absence of implementation planning and measurable objectives that could help to translate "big picture" goals into concrete actions. At the same time, the lack of co-operation and the existence of political differences create additional hurdles to defining education goals directed at system improvement and better student outcomes.

All competent education authorities have set strategic directions for education improvement, but many are impeded by resource constraints

During meetings with the review team, all competent education authorities reported that setting longer-term directions for education improvement helped to guide their work – as a way to organise resources, make policy more coherent, and structure dialogue with different partners. At the same time, the extent to which different competent education authorities can formulate these strategies and articulate implementation plans varies widely. At the time of this review, Republika Srpska had a dedicated five-year education strategy in place (2016-21), which outlined goals and included a five-year Action Plan with clear measures and activities. The RS government is also currently developing a new strategy that will guide the entity's education sector through 2022-30. Sarajevo Canton also has a standalone education strategy. However, in other parts of FBiH, most cantons have defined education goals as part of broader cantonal development plans. This is the case in the West Herzegovina and Central Bosnia cantons, though the former is currently drafting a dedicated Education and Science Strategy. Brčko District has also defined some education goals as part of its district-level development strategy.

Country-level education laws, strategies and standards have been defined in the past, but their implementation has been hampered by a lack of political will and concrete guidelines

BiH's competent education authorities have made efforts to improve the coherence of education policies and to harmonise them with practices found in European Union (EU) countries. Specifically, there have been country-level framework laws, strategies and proposed standards for teachers and student learning that aim to strengthen the performance of BiH education systems. For example, in 2003, BiH's Education Ministers adopted a new (at that time) country-wide Framework Law on Primary and Secondary Education, to facilitate student mobility across BiH, promote greater school autonomy, and increase parent and teacher involvement in the organisation of schooling. In 2007, the country also established the *2008–2015 Strategic Directions for the Development of Education in BiH*, to provide guidance on policies that competent education authorities could include in their development plans, using EU education models as a reference. This strategic directions document has since expired.

While BiH has developed a range of high-level education documents in the last two decades, the only strategic documents and platforms that currently exist at the state-level relate to higher education, VET, pre-school education, and other topics, such as entrepreneurial education and lifelong learning (MoCA, n.d.[2]). Most of these documents were developed as part of commitments made to international bodies, such as the Council of Europe and the EU. The Framework Law, for instance, was developed with support from the Council of Europe and fulfilled part of BiH's commitments in the area of education (OSCE, 2003[3]). Notably, there are no current strategic documents or platforms at the state-level in BiH related to primary and secondary schooling.

Implementation of state-level policy documents within each administrative unit has been a challenge. Positively, the Ministry of Civil Affairs reports to the Council of Ministers of BiH once a year on the extent to which competent education authorities have implemented the principles contained in these documents, based on input from each jurisdiction. However, this reporting indicates that implementation is slow and uneven across different parts of the country. Actors commonly cite a lack of political will, as well as the absence of concrete operational guidelines and measurable progress indicators as reasons for inconsistent implementation (USAID, 2017[4]). In general, there have been no steps to define a framework of indicators to comprehensively measure education performance at the BiH-level, and the completeness of reporting information provided by different competent education authorities varies substantially.

Mechanisms to promote more country-level co-ordination, communication and alignment around education policy have been created, but sustaining momentum is a challenge

BiH has country-level bodies to help co-ordinate, communicate and align education policies implemented by the competent education authorities. In 2008, the Conference of Ministers of Education in BiH was established, with the goal of overseeing "the fundamental reform of the existing parallel education systems of BiH as a matter of high priority." In 2009, the Agency for Pre-Primary, Primary and Secondary Education (APOSO) was established to develop a Common Core Curriculum Based on Learning Outcomes, evaluate learning, and serve other evaluation roles, as a successor to the former Agency for Standards and Assessment for FBiH and RS. The Ministry of Civil Affairs of BiH also plays a co-ordination role, helping to track country-level initiatives and lead engagement with international partners in the field of education. For example, the Ministry of Civil Affairs performs general policy co-ordination tasks, including consolidating the development plans of the entities and cantons, which provides it with a perspective on how each authority's education policy is linked to its overarching development context and plans.

While mechanisms for country-level policy co-ordination exist, sustaining momentum is a challenge. Most co-ordination mechanisms were initially set up to fulfil commitments made to international bodies, and find momentum and support difficult to maintain once this moment has passed – which is not to understate their impressive achievements. The review team heard, for instance, that meetings of the Conference of Education Ministers take place infrequently, and are sometimes attended by working-level officials who may lack expertise in the subjects being discussed. While country-level bodies like the Ministry of Civil Affairs continue to co-ordinate education governance across BiH, these bodies are overloaded, and struggle to engage with some authorities at the entity, canton and district level.

Tools to conduct system evaluation are incomplete

Most OECD countries use a range of tools to monitor education system performance. Administrative data on students, teachers and schools is typically held in a comprehensive information system, and can be easily extracted for analysis. Most OECD countries now also compile trend data on learning outcomes collected through regular national and international standardised assessments. In BiH, the Agency for Statistics of Bosnia and Herzegovina (BHAS) compiles education statistics across the country for reporting internationally. However, data for important indicators cannot be aggregated at the country level, and information is missing in critical areas, notably data on learning outcomes.

The BHAS compiles country-level education statistics for reporting internationally

The BHAS collects data on the education sector once a year through a network of canton- and entity-level reporting units to produce its education statistics. These units collect information from schools through a (mainly paper-based) questionnaire, compile a report, and then send this information to the BHAS to be aggregated into country-level statistics. A legal framework has been established, which regulates the collection and systematisation of data at the country and entity levels, and most cantons have harmonised their laws accordingly (World Bank, 2019[5]). However, the BHAS still faces the challenge of processing

incomplete statistical forms and notes concerns over the accuracy of some of its key education indicators. For instance, data on net participation rates at different levels of education must be compiled through referencing data collected from schools against the country's most recent census, which was last conducted in 2013, meaning that baseline population figures are not available for children of pre-primary and primary age. Despite these challenges, the BHAS continues to improve the quality of BiH's education data. For instance, the agency is currently implementing a project with UNESCO to migrate its method of data collection from pre-school, primary and secondary schools to a web-based form – aiming to make data collection more efficient for international reporting and address some concerns around data quality.

Each competent education authority compiles its own administrative data but many cannot provide information for country-level reporting purposes

In most OECD countries, administrative education data are collected according to national and international standardised definitions, enabling data to be collected once, used across the country's education sector and reported internationally. In BiH, each competent education authority applies its own data management system, and there is no country-level agreement on statistical concepts, definitions, or on information management in the field of education. As a result, the BHAS can not make use of the administrative data produced by education authorities to compile its education statistics and must collect its own data directly from schools, reducing the accuracy of certain key indicators.

While some competent education authorities have a relatively comprehensive education management information systems (EMIS), others do not have any structured data collection and processing systems. Republika Srpska, for instance, can access disaggregated data on school financing, human resources, the working week and learning outcomes in real time through its EMIS (known as EDUIS), while West Herzegovina Canton can access records of subject teachers per student/class, curriculum implementation, test grades and student absences on a daily basis through its system. In smaller jurisdictions, like Brčko District, such systems often do not exist, preventing authorities from conducting analysis on system performance trends over time. Few competent education authorities compile itemised data on teachers and students, which hinders meaningful analysis.

In the early 2000s, a World Bank project sought to establish a country-wide EMIS in BiH – with the objective of providing more information on teaching and learning to primary school teachers, promoting a more efficient and equitable use of public resources, promoting more co-operation and co-ordination among the country's three constituent groups, and to test the viability of a "per-student" budgeting model. The project was initially piloted in RS, Tuzla Canton and Central Bosnia Canton, with the aim of gradually rolling out to all other competent education authorities. However, in most cantons, the EMIS was either never fully implemented or fell out of use (World Bank, 2012[6]).

Data on learning outcomes is limited

Most competent education authorities in BiH compile data on student learning in the form of grade point average and other teacher-graded marks. However, these results are not standardised and cannot be used to reliably assess learning across schools. Over the past twenty years, many OECD countries have expanded the use of regular standardised assessments to provide comparative measures of student achievement. In BiH, too, RS has started to implement an annual external assessment of Serbian language and Mathematics skills at Grade 5, which is mandatory for all schools under the Law on Primary Education of RS; however, the details of this assessment and the use of its results are unclear. In addition, two cantons (Sarajevo and Tuzla) conduct external standardised assessments but these are designed primarily for certification purposes rather than system monitoring (see Chapter 2). In Sarajevo Canton, examination results are coded and uploaded to the EMIS and school-level data is published periodically on school noticeboards; however, actors outside of the ministry and school must make a specific request to view the

data. Importantly, these assessment instruments were developed independently by their respective competent education authority, and thus can not produce comparable data.

Implementing a country-level standardised assessment implies significant costs. Participation in international learning assessments can therefore be an effective way to produce data on learning outcomes until such a tool is made available. Positively, BiH participated in two international learning assessments in recent years – PISA (in 2018) and TIMSS Grade 4 (in 2019) – after more than a decade without reliable data on learning outcomes. Participation is not regular, however, which means performance cannot be measured meaningfully over time. Notably, BiH will not participate in PISA 2022 and is unlikely to participate in TIMSS 2023, making it the only Western Balkan economy that will not have a means to monitor learning outcomes in relation to EU and international education goals. BiH is also the only Western Balkan economy that is unlikely to participate in the next cycle of the OECD Teaching and Learning International Survey (TALIS), further limiting the country's efforts to better understand factors that influence student outcomes – e.g. teachers' working conditions and school learning environments.

Education authorities do not regularly report on system performance

Publishing regular reports on system performance allows many OECD countries to interpret system-level data and provide policy messages for accountability and improvement efforts. BiH does not regularly publish reports on the performance of its education systems or evaluations of major policies. Positively, some education authorities and development partners in the country have organised conferences and produced research and analysis on the sector and specific education issues, such as inclusive education. APOSO also has a mandate to conduct system evaluations at the state-level and it plays an important role in advancing technical dialogue around education in BiH. However, the agency is under-resourced and some competent education authorities struggle to fully understand the agency's role and may not engage with its initiatives.

There is limited demand for evidence and analysis on education system performance among domestic education stakeholders

Aside from a lack of resources, one of the reasons for limited system evaluation in BiH is a lack of demand from key sectoral stakeholders. Competent education authorities report limited use of evidence to inform planning and policy development. Many do not have a full picture of the evidence available and may not have capacity and time to interpret it. Aside from competent education authorities, BiH's academic community has not expressed a strong interest in carrying out education system evaluations. Secondary analysis of BiH's results from PISA, TIMSS is limited to the work of APOSO, and research on other aspects of the education system, which could be used to inform policy, is rarely conducted. As a result, the wider stakeholder community, including parents and community leaders, do not have evidence or opportunities to engage with the competent education authorities or Pedagogical Institutes on system performance.

APOSO is a state-level agency that sets standards and evaluates education quality, in co-operation with competent education authorities

APOSO has a mandate to set standards, evaluate education quality, and help to co-ordinate participation in international learning assessments. To date, the agency has carried out secondary analysis on the results of PISA and TIMSS, translated these results into Bosnian, Croatian and Serbian (as well as English), and made these results freely available online. APOSO is a strong advocate for advancing evidence-informed, technical discussion on the state of education in BiH, and it produces analysis and technical tools (for instance, the Common Core Curriculum) that can underpin this discussion. The agency continues to invite debate on the results from international learning assessments among education stakeholders in BiH. In 2020, for instance, APOSO posted key findings from PISA and TIMSS on its news page and invited "education authorities to take the results … seriously, as an incentive to speed up the

reform processes (APOSO, 2020[7])." It also organised stakeholder conferences and workshops to discuss their results – for instance, with teachers, school principals and pedagogical specialists.

BiH has traditionally underinvested in its system evaluation function

The decentralised nature of education policymaking in BiH has left the country's system evaluation function under-resourced. Neither competent education authorities nor country-level co-ordination bodies have the resources or capacity to produce periodic system evaluations. BiH also lacks much of the comparable data needed to produce meaningful analysis on the performance of its education systems. This context presents a serious challenge for BiH, as education authorities struggle to build decisions around the governance of education on a more impartial, evidence-informed footing.

BiH works closely with international partners in the sphere of education

Most international development partners have identified education as a priority area for engagement with BiH. Over the period 2014-20, for instance, 9% of the financial assistance BiH received from the EU's Instrument for Pre-Accession Assistance (IPA) II programme went to education, employment and social policies (EC, 2018[8]). International development partners based in Sarajevo convene regularly, and have attempted to co-ordinate their activities with BiH to support more strategic engagement with the country. At the same time, development support can be piecemeal, due to the absence of a long-term vision or a strong co-ordination mechanism at the state-level. Producing better-quality information on system performance could enable BiH to make more strategic use of available development assistance, and allow international development partners to review the impact of their support measures over time.

Policy issues

In some OECD countries, decentralisation has improved the quality of education by enabling education authorities to strengthen partnerships with local stakeholders and better identify and address their specific needs. At the same time, decentralised education systems can be more vulnerable to challenges related to effectiveness, equity and accountability, especially when co-ordination and co-operation mechanisms are missing (EASNIE, 2017[9]). In BiH, the governance of education policy is decentralised, and the lack of strong collaboration among various education authorities presents significant challenges for accountability and system improvement. While competent education authorities in BiH have the power to develop and implement their own education policies, many lack the resources to identify measurable goals for their education system and measure progress systematically. In many cases, competent education authorities also need scale to make their goals, data and reporting meaningful.

Most OECD members with decentralised education systems have country-level bodies and initiatives to help facilitate co-ordination and co-operation. In some instances, they also use these bodies to share resources more equitably across jurisdictions. Such co-ordination efforts must be designed carefully, to provide the support needed while simultaneously preserving the independence of local authorities. BiH has established mechanisms to co-ordinate education policy and there are positive examples of recurring collaboration between competent education authorities. The primary challenge is to expand meaningful collaboration at the country level and progressively strengthen system evaluation to support accountability and guide improvement efforts. To do this, BiH should revitalise the Conference of Education Ministers with a mandate to establish a set of common goals for school education, as well as clear action plans and reporting procedures. To support reporting against these goals and policy more broadly, BiH authorities should co-operate to produce richer education statistics and more robust data on learning outcomes. Finally, BiH should strengthen transparency and trust across its education system by building demand for system evaluation among researchers and creating new platforms for broader stakeholder engagement.

Policy issue 5.1. Revitalising the Conference of Education Ministers to establish a common vision for pre-tertiary education

Many OECD countries with decentralised education systems establish education goals and other governance initiatives at the country-level, to stimulate improvement, facilitate peer learning and reduce territorial disparities. This approach enables governments to set standards that are coherent at the country level as well as internationally, to define goals that are more ambitious and outcome-focused, and to pool resources and know-how across the country's different education systems. At present, there are no state-level strategic goals for school education in BiH. The governance of school education in BiH is decentralised and collaboration across jurisdictions is often limited. This creates challenges for system evaluation and can prevent actors from agreeing on a set of common goals. While competent education authorities in the country have defined goals for their education systems, the majority lack sufficient resources and quality data to translate these goals into concrete implementation plans and measurable objectives. Establishing school education goals at the country-level would also enable BiH to make better use of donor support and to move closer to EU standards.

Positively, BiH's competent education authorities have already collaborated to develop country-level framework laws, standards and strategies for parts of the education sector. In addition, the Conference of Education Ministers provides a platform for country-level education policy co-operation and dialogue. These initiatives have helped to set standards for education in BiH and improved the country-level coherence of policies set by the competent education authorities. However, the implementation of country-level documents at canton and entity level has proved a challenge, and the Conference has lost momentum and lacks a clear programme of work. The Conference should be revitalised to chart a common vision and goals for raising the quality of education in BiH in the wake of COVID-19. To ensure that this exercise leads to real change, the Conference should establish a vision that is evidence-informed, focused on results and widely accepted by stakeholders. It should devise an indicator framework and action plans that would translate broad goals into concrete activities and enable authorities to measure progress over time. Finally, the Conference should ensure that the results of its work and system performance more generally are reported to the public on a regular basis, to strengthen trust, transparency and engagement in .

Recommendation 5.1.1. Establish a common, widely-approved vision and goals for pre-tertiary education in BiH

The decentralised governance of education and strained collaboration among jurisidctions has created barriers to reform within some competent education authorities and barriers to co-operation at the country level. In a number of OECD countries, establishing a country-level vision for system improvement has helped to depoliticise the education debate and focus attention on improving outcomes. In Australia, for instance, the 1989 Hobart Declaration played a critical role in strengthening intra-state co-operation in the area of education and establishing a demand for monitoring education outcomes in Australia (Santiago et al., 2011[10]). While the BiH context is different, Australia's experience shows an example of independent education sub-systems, each with their own powerful stakeholder groups, reaching consensus around a set of goals that are seen to have common relevance – and finding value in having achieved this result. The move to establish common goals for the school sector was underpinned by a view that this was essential to secure Australia's future productivity and international competitiveness, and the Declaration makes a clear reference to this objective (Box 5.1).

Defining country-level approaches to education policy can have other benefits, such as helping to improve the coherence of education policy across different jurisdictions. For instance, it can be used to address local discrepencies in college and career readiness and to ensure that certification of attainment and achievement is standardised and recognised across the country. In BiH, country-level initiatives could help education authorities to review the organisation of schooling in their jurisdictions and shift the focus of

stakeholders towards helping students learn throughout school and transition successfully into further studies or work. To establish an implementable, country-level vision for system improvement, BiH should establish a discrete set of education goals, aligned with its international commitments and labour market needs. It should define clear responsibilities in this process, to ensure that education goals are formulated through a reflection on BiH's current needs and based on a broad consultation to secure stakeholder support.

Develop a discrete set of education goals that are clear, focused on results and informed by evidence

System-level goals should give coherent direction across different levels of government and to a multiplicity of education actors. For this to happen, goals should be clear, feasible and above all, generally relevant across all parts of the education system. These features also enable system-level goals to be picked up and embedded into key reference frameworks, such as school evaluation standards (see Chapter 4), which can strengthen education policy coherence and help all actors to work towards their achievement.

In a growing number of OECD countries, high-level education goals have been established that set out the overarching results a country would like to achieve, as well as the strategies or objectives to achieve them. This approach can provide clarity of focus, reinforce accountability and improve resource efficiency – by establishing not only a clear outcome that all stakeholders know they must work towards, but also by establishing the approach and processes that stakeholders should use to get there. Many high-performing systems define only a limited number of goals, to support this clarity of focus. In Australia, for instance, the Hobart (1989) and Adelaide (1998) Declarations defined just ten and then eighteen common goals, establishing a basic approach to education that should guide all states.

Alongside a growing focus on outcomes, OECD countries are increasingly including equity objectives in their high-level, country-wide goals. This move has enabled many countries to reinforce efforts to deliver on their Sustainable Development Goal 4 (SDG4) commitments and sends a clear message that education goals are designed to serve all citizens. BiH may also decide to include equity objectives in its high-level goals – echoing the country's Constitution, which sets out that every child should be able to access education on equal terms.

Box 5.1. Melbourne Declaration on Educational Goals for Young Australians

The Melbourne Declaration on Educational Goals for Young Australians, released in December 2008, and agreed to by all education ministers through the Ministerial Council on Education, Early Childhood Development and Youth Affairs (MCEECDYA), articulates future directions and aspirations for Australian schooling. It sets young Australians at the centre of the agenda for educational goals and provides a framework for developing curriculum and assessment. The Melbourne Declaration has two overarching goals for schooling in Australia:

- Australian schooling promotes equity and excellence.
- All young Australians become successful learners, confident and creative individuals, and active and informed citizens.

The national goals for schooling are supported by the MCEECDYA Four-Year Plan 2009–2012 (MCEETYA, 2009), which was endorsed by all Australian education ministers in March 2009. The plan is closely aligned with the Council of Australian Governments agreements. It outlines the key strategies and initiatives Australian governments will undertake in the following eight inter-related areas in order to support the achievement of the educational goals outlined in the Melbourne Declaration:

- developing stronger partnerships
- supporting quality teaching and school leadership
- strengthening early childhood education
- enhancing middle years development
- supporting senior years of schooling and youth transitions
- promoting world-class curriculum and assessment
- improving educational outcomes for Indigenous youth and disadvantaged young Australians, especially those from low socio-economic backgrounds
- strengthening accountability and transparency.

Source: (Santiago et al., 2011[10]), *OECD Reviews of Evaluation and Assessment in Education: Australia*, https://doi.org/10.1787/9789264116672-en.

BiH's competent education authorities should formulate a discrete set of common goals for schooling in the 21st century that focus on the outcomes they would like to achieve. These goals should focus on the desired economic and social outcomes of schooling, and should enable BiH to align more closely with the EU and advance international commitments like SDG4. There are a number of areas in which many of BiH's competent education authorities are facing common challenges and needs, and these include:

- ***Increasing participation in early childhood education.*** Currently, BiH presents one of the lowest rates of enrolment in early childhood education in the EU. While rates vary among jurisdictions, the country level was around 18% in 2018, compared to 95.3% on average in the EU (European Commission, 2019[11]). Numerous studies have found that the first five years of a child's life are crucial to their development. PISA results, for instance, show that students who attended early childhood education and care (ECEC) typically score higher in reading at age 15 (OECD, 2018[12]), and that investment in quality early childhood education yields important economic and social returns – often more than at other levels of education (OECD, 2020[13]). This goal could be a cost-effective way for BIH to improve student outcomes in the long-term.
- ***Improving outcomes in core learning areas.*** Results from PISA 2018 suggested that 41% of students in BiH did not achieve the minimum skills (Level 2) in all three PISA domains. This is

significantly higher than the average percentage of students who did not achieve minimum skills in both the OECD (13.4%) and in the Western Balkans (38.7%). PISA aims to assess whether students have acquired complex, higher-order thinking skills and can apply these skills to unseen problems, because it assumes that as incomes grow and the century advances, jobs are likely to constantly evolve and become more technology-intensive (OECD, 2011[14]). BiH may aim to address this issue as part of its common goals.

- ***Raising digital literacy and ICT skills.*** Strong digital literacy and ICT skills will be critical to thrive in 21st century work and life. Data compiled by Eurostat through the EU's Digital Competence Framework suggests that only 24% of individuals in BiH had basic or above basic digital skills in 2019, compared to 56% in the EU-27 (EC, 2019[15]). Emphasing these competences in education systems across BiH would help position the labour force to compete in today's digital world.
- ***Improving education outcomes for Roma and students with disabilities.*** BiH is home to around 25 000-50 000 Roma, and some estimates place around 6.5 percent of the country's children between two and nine with some form of disability (UNICEF, 2020[16]). According to official estimates, only around half of Roma children of primary school age are enrolled in school (UNICEF, 2020[17]), very few participate in pre-primary education (an estimated 3% of those aged 3-5, compared to 33% in Albania), and no progress has been made to improve the completion rate for compulsory education or to increase continuation in schooling afterwards (Robayo-Abril and Millán, 2019[18]). In addition, it has been noted that children with disabilities do not receive the same quality of education as their more abled peers (UNICEF, 2020[16]). BiH may wish to target this issue to improve inclusion of education and work towards achieving SDG4.
- ***Addressing performance gaps between rural and urban areas.*** Results from PISA 2018 show that BiH presents considerable rural-urban gaps in reading performance. An in-depth analysis found that students in urban schools outperformed those in rural schools by about 50 score points – and this gap remains statistically significant once the data has been controlled for students' socio-economic status (OECD, 2020[19]).
- ***Supporting school to work transitions.*** BiH has one of the highest youth unemployment rates in the Western Balkans, at 33.8% in 2019, compared to 27.0% in Albania and 25.3% in Montenegro for instance, and compared to 12.5% in the OECD (ILO, 2019[20]). Youth unemployment is an issue in many countries, as the transition from school to work becomes increasingly challenging for young people. This problem reflects supply-side issue, as participation in basic education reaches near-universal levels, as well as demand-side issues, as employers seek higher-order skills and competences and jobs become increasingly changeable. To address the problem, many countries are making a deliberate effort to support school to work transitions.

Establish distinct roles and responsibilities for elaborating a common vision and goals

While school education policy will continue to be set by RS entity, cantons of FBiH or Brčko District authorities, BiH should establish a technical Task Force to support the Conference of Education Ministers in elaborating a common vision and goals for school education at the state level. The Task Force should be comprised of technical representatives of cantonal and entity-level competent education authorities, as well as other key stakeholder groups, such as the private sector, APOSO, the BHAS, the Ministry of Civil Affairs, the donor community, academia and, potentially, an international expert. The body would be responsible for ensuring that common goals are established and implemented through evidence and consultation. Their tasks would include developing background analysis, organising stakeholder consultations, overseeing the elaboration of an indicator framework and devising a structure for regular analytical report on the state of education.

The Conference of Education Ministers would be given the role of steering the formulation of a common vision and goals for education. The Conference already has a complementary mandate (to drive "the

fundamental reform of the existing parallel education systems of BiH as a matter of high priority" (OHR, 2000[21])), giving it the authority to help ensure that education goals are concluded with political support. The Conference, at Minister level, should commit to meet at least four times over the course of one year to provide feedback on and approve a common vision and goals for school education. Once this has been achieved, the Conference, at Minister level, should commit to meet at least once a year to discuss performance against common goals, to engage in mutual learning, and to discuss how support from the international community could be best leveraged. The meeting could take place at end-Q3 to start-Q4 each year, to coincide with planning for the entities' and cantons' annual budgets. Updates linked to a biennial/trienniel analytical report on the state of education (Recommendation 5.1.3) should be released just prior, to inform this dialogue.

Ensure that education goals are established through broad-based consultation

The obstacles to education reform and improvement in BiH are complex, and there are few straightforward solutions. Across the OECD, for instance, policymakers often use background characteristics as a lens to review education outcomes – recognising that education systems can underprovide for minority groups. In BiH, however, ethnic background continues to have a out-sized influence on the organisation of schooling.This lens has a strong influence on public debate around education and can be an important obstacle to reform. Evidence suggesting that certain social groups underperform others may therefore not be sufficient to propel targeted initiatives. The limited collaboration among competent competent education authorities in BiH could present roadblocks to defining common goals, reporting on progress, and engaging in state-level projects, even if robust evidence is available to inform debate.

To address this challenge, education goals should be established through broad-based consultation. Different forms of consultation will be needed at different stages of the process of establishing common goals and targets. In Canada, for instance, the Council of Education Ministers, Canada consults extensively with different stakeholder groups to elaborate its education priorities and its five-year strategic plans (OECD, 2015[22]).Overall, the elaboration of common goals for school education in BiH should involve input from business associations, important stakeholder groups, civil society organisations, and other actors. Consultations should be constructive, and organised around a set of technical issue areas, with interlocutors clearly briefed on the purpose of both the consultation and the overarching goal. APOSO should be involved in organising and mediating these consultations.

Recommendation 5.1.2. Formulate action plans and a country-level indicator framework to monitor progress against the common education goals

BiH's country-level education strategies and laws have failed to translate into concrete change, partly due to a lack of measurable objectives and concrete implementation plans (World Bank, 2019[5]). A growing number of OECD countries now use planning and reporting tools to frame how they will advance and monitor progress against their education goals. These tools include action plans, that help education authorities break down how they are going to achieve a certain goal, and indicator frameworks, that enable education authorities to monitor progress incrementally. Countries use these tools to provide a clear sense of direction to education actors on the goals they are working towards, and the nature of their role. Clarity of focus is particularly important in the education sector, given the multiplicity of actors involved, and the fact that achieving change often necessitates incremental efforts over many years.

In BiH, efforts to implement country-level reform agendas and standards will necessarily involve many different education actors, across a complex governance landscape. In this context, establishing a clear direction on the actions that must be taken, by who and by when, becomes key to achieving progress. Another important step would be to translate common education goals into a country-level indicator framework. This framework would provide different education actors with a tool to objectively monitor and report on system progress. In BiH, the tool would provide a common reference point to align different

education actors, rallying all to the objective of achieving results, and helping to structure dialogue when planned activities may need to change course.

Enable competent education authorities to develop their own action plans linked to achieving country-level goals for the school education sector

Change hinges on aligning policy activities behind strategic goals for system improvement, and for this, action plans are key. There are a number of actions that BiH will need to take at the country level to achieve common school education goals. Competent education authorities may wish to develop a country-level action plan to achieve these goals, or to integrate actions linked to achieving country-level goals into their own action plans. To ensure the coherence of action plans and the coverage of all competent education authorities, the Task Force may decide to develop a template action plan that can be customised by each authority but aligns with state-level goals and plans. There are various areas where BiH's competent education authorities may wish to carry out collaborative activities. These include:

- **Initiatives to improve existing school funding models.** Despite spending close to 5% of GDP on education, schools in BiH remain under-resourced. PISA 2018 results, for instance, suggest that 67% of BiH students attend schools whose principal reported that the school's capacity to provide instruction is hindered by a lack of educational material, which includes ICT equipment. This compares to 49.6% in Albania, 47.3% in Romania and 28.4% in the OECD (OECD, 2020[23]). The majority of funding goes to teachers' salaries, which are still perceived as low. The World Bank has proposed initiatives to strengthen school funding mechanisms in BiH, which could be covered in competent education authorities' action plans, including:
  - limiting the rise of teachers' salaries, to create funding for capital investments in education
  - introducing performance-based selection and pay, to attract and keep the best teachers
  - basing each school's funding on the number of students they teach.
- **Initiatives to address issues in rural schools.** In many OECD member and partner countries, the quality of rural schooling has been improved by efforts to address multi-grade classrooms, size and efficiency issues (e.g. through school network rationalisation), limited access to early childhood education, digital connectivity gaps, and gaps in teacher quality, among other initiatives (OECD, 2017[24]).

In developing action plans, competent education authorities should incorporate features that have supported implementation planning across the OECD. In addition to the features in Table 5.2, these include:

- **Aligning actions with clear and specific goals.** Desired outcomes should be clearly stated and included in action plans so that actors know what they are working towards (the outcome)..Desired outcomes should be clearly stated and included in action plans. For instance, an expected result outlined in the EU's Instrument for Pre-Accession Assistance (2014-20) is to see a reduced number of early school leavers and school drop-outs. To align with this aim, BiH could establish an action plan goal to "establish an early warning system in each competent education authority."
- **Ensuring actions are clear and specific.** Similar to goals, actions and sub-actions should be operationally clear and specific. For example, to establish an early warning system in each competent education authority, two relevant actions could be to identify funding and to identify a research partner to develop a methodology for an early warning system.
- **Including an indication of timing and points of contact.** BiH could consider developing mid-term outcomes or milestones to monitor progress continuously. For example, a mid-term outcome for establishing early warning systems across BiH could be that a methodology has been approved for early warning systems and that this methodology has been tested.

- **Reviewing progress indicators and assigning clear targets.** Clear targets will help the action plan's architects to track progress against the plan's goals. Alongside output and outcome indicators, the plan's architects could also identify progress indicators. Progress indicators provide implementors with a picture of the different steps in a process, and can thus help implementors keep sight of the bigger picture and major milestones that should be achieved along the way.
- **Identifying and planning for resource needs.** For the action plan to be financially viable, the issues addressed must be sufficiently important and produce desirable results at reasonable and forseeable levels of expediture (Bryson, 2018[25]). This requires a constructive discussion with funding partners, both domestic and external (i.e. development partners). To make this discussion constructive, the agency leading formulation of the action plan (here, the Conference's Task Force) should develop a realistic budget that prioritises actions and measures results. Decisions should align with the government's (or governments') broader development agenda and adequate resources should be allocated with more predictability, based on strategic plans.

Once completed, these action plans could be compiled by the Task Force for monitoring and review purposes – potentially in an abridged form.

Table 5.2. Illustrative items for an action plan to achieve common education goals

Goals	Actions/sub-actions	Timeline	Lead agency/partner	Mid-term outcomes	Outcome
Establish an early warning system in each competent education authority	• Identify funding to develop an early warning system	2022	Competent education authorities	A methodology has been approved for early warning systems and this methodology has been tested	Each competent education authority has an early warning system in place
	• Identify a research partner to develop a methodology for an early warning system	2022			

Source: Authors.

Define a country-level indicator framework, linked to common goals

Defining a country-level indicator framework could help BiH to measure and communicate progress towards achieving its country-level education goals. A robust indicator framework will effectively translate policy goals into measurable targets, and will provide regular and objective feedback on progress. Alongside timebound targets, a robust framework will stipulate the data sources to be used and the frequency of reporting around each indicator. These steps strengthen co-ordination between different system actors, by providing clarity around the data points that they should pay attention to. A robust indicator framework will set clear expectations and reinforce transparency. In BiH, the Conference's Task Force should elaborate a set of outcome indicators that link to the country's common education goals. In selecting indicators, the Task Force should take care to choose indicators that can be underpinned by good-quality, regularly-released data. The Task Force may also choose to select indicators that have been prioritised in BiH's reporting to the EU and other international partners.

Each indicator should be associated with timebound targets. BiH's competent education authorities may decide to establish single targets at the country level, or to establish differentiated targets at the level of each competent education authority. Through the latter option, each competent education authority would have flexibility to prioritise the common education goals that are most important for them (for instance, by setting more ambitious targets for some indicators, less ambitious targets for others). However, this approach would still require baseline targets to be set at the country-level, to ensure that actions taken by competent education authorities still help BiH to progress in delivering upon its international commitments

and aligning with the EU. For instance, competent education authorities may agree to set a baseline target for the rate of youth not in employment, education or training (NEET) upon completion of a five-year action plan. In 2019, this rate was 21.9% for BiH as a whole (ILO, 2020[26]). Competent education authorities may agree to set a target of 15% or 16% at the end of a medium- to long-term planning period, which would bring BiH more in line with the youth NEET rate in the newest EU member states, such as Bulgaria (13.7% in 2019) and Romania (14.7% in 2019) (ILO, 2020[26]).

Recommendation 5.1.3. Strengthen reporting on education performance and policy

In many OECD countries, regular reporting on system performance has helped build trust and a shared understanding of the system's structure and dynamics. Regular reporting could help BiH's competent education authorities to strengthen public confidence and engagment in reform, by establishing an evidence-informed dialogue on the sector's main challenges and needs. In Portugal, for instance, an annual analytical report was introduced as part of a major education reform process, while Switzerland has established a quadrenniel education report as part of efforts to strengthen monitoring and reporting across the Confederation (Wong et al., 2017[27]). BiH does not regularly report on system performance. While agencies like the BHAS and APOSO provide good information on the sector's fundamental characteristics and performance at the country-level, this information is still sparse, scattered across different platforms and there is limited information on major education policy initaitives and activities that is publicly available.

Launch a periodic State of Education in BiH report

BiH should establish a regular analytical report on the state of education to strengthen reporting on system performance, connected to priorities outlined under the country's common goals for schooling. This report should be released on a biennial or triennial basis, to allow adequate time to carry out quality assurance of the data and conduct meaningful analysis. The report could be funded by the Conference of Education Ministers through an international development partner. The partner would ideally commit to fund multiple cycles of the report or until the Conference of Education Ministers can reach a cost sharing agreement among the country's education systems. The report could be drafted by researchers within BiH, and/or by a group of researchers commissioned internationally, based on data provided by the competent education authorities, BHAS and APOSO.

The Conference's Task Force would be well placed to devise the report's structure and items to be included. The report could open with an introductory chapter on the educational context, setting out demographic trends and economic factors, among other data, as is common to most state of education reports. The report should include data disaggregated for each competent education authority, and the report's analysis of overarching trends at the country level should include references to trends in specific authorities, where this enriches the analysis. Disaggregated data and analysis is a common feature of reporting in other countries with decentralised education systems, and helps to ensure that the exercise is useful for policy and supports peer learning. Germany's periodic report on education, for instance, provides indicator-based information that is disaggregated for each of its federal states (Länder) and compared internationally. In addition, the country provides an online platform (https://www.bildungsbericht.de/) where a complete set of data tables can be accessed.

To complement more generalised reporting on the state of education, each iteration of the report could include a thematic chapter, on a topic selected by the Task Force. Some OECD countries have used general themes – the Swiss Education Report presents thematic chapters on effectiveness, efficiency and equity, for instance, while Norway's Education Mirror presents thematic chapters on learning outcomes, the learning environment, upper-secondary education completion rates, school resources and school facts. In BiH, the Task Force may choose to link thematic chapters to overarching themes of the country's common goals for schooling.

Alongside quantitative data, the report could also include qualitative insights. The Task Force should, for instance, consider including information on instructional and managerial practices and workloads in schools, provided by the Pedagogical Institutes (a need cited by the World Bank, in (World Bank, 2019[5]), To promote mutual learning between competent education authorities, the Task Force should consider featuring snapshots of successful interventions undertaken by these authorities, and any insights obtained through recent policy evaluations conducted by competent education authorities. This approach has been taken in Norway, which includes qualitative information on schools and on national initiatives to promote better local monitoring of quality in its Education Mirror (Nusche et al., 2011[28]).

Establish a web platform dedicated to school education in BiH

While basic information about the country's education sector is available on the Ministry of Civil Affairs' website, BiH does not have a single portal that provides information on education policies and performance. At the country level, the Ministry of Civil Affairs, APOSO and the BHAS present important information on education policies and system performance. These resources include sector-specific data and reports that interpret the findings of PISA 2018 and TIMSS 2019 for BiH. However, information on the education systems of BiH is limited, and scattered across different platforms. As a result, it is difficult to obtain a clear picture on how education funding is being used, the outputs that this funding is producing, and – most importantly – to feed reliable, objective information on system performance into public debates on education.

Concerted efforts to strengthen transparency are particularly important in countries where trust in government is low. In BiH, surveys suggest that around 64% of the population finds their education systems to be corrupt or extremely corrupt (Transparency International, 2018[29]). To strengthen transparency around education system performance, the Conference's Task Force should consider establishing a web portal that provides data and analysis on education in BiH, and presents recent policy initiatives. This could take the form of a dedicated site or be linked to the website of the Ministry of Civil Affairs, through a page on the Conference of Education Ministers. The first option would be more costly, and it would entail more efforts to maintain and update. However, this option could provide the platform's architects with more flexibility to develop innovative functionalities and maintain the independence of content posted.

Policy issue 5.2. Increasing efforts to produce richer education data for BiH through increased country-level co-ordination

Data are integral to system evaluation. Over the past two decades, technological advancements have enabled policymakers to compile increasingly granular and timely data, and provided new tools to analyse this data. As a result, policymakers are able to more accurately measure the direct effects of education outputs (for instance, the employment and earning benefits of pursuing higher education), as well as to measure the contribution made by specific steps in a process to reach an end result. This is important because it provides the data needed for more effective, formative policy. An ability to capture data on outcomes and processes helps to shift policy focus away from inputs (e.g. expenditure on education, the number of teachers) and outputs (e.g. enrolment and completion rates), and towards outcomes (i.e. progress towards the results that a system would like to achieve) and processes (i.e. measuring the extent to which different steps are helping or hindering the achievement of a specific result). The availability of increasingly granular data also enables policymakers to track differentiated impacts on specific demographic groups, and this supports policies to reduce inequities. However, as data are used to inform policy more often, it also becomes more important to ensure that this data is accurate, complete and timely.

Competent education authorities in BiH cannot access high-quality data support system evaluation and benchmarking purposes. While the BHAS tries to produce country-level education statistics for reporting internationally, it finds quality assurance a challenge. The BHAS informed the review team that access to

reliable, comparable and timely administrative data would enable the agency to produce more accurate, timely and granular education statistics, but it cannot make use of administrative data produced by competent education authorities due to methodological differences. In parallel, many competent education authorities would like to review the performance of students, teachers and schools in their own jurisdiction, but not all have the resources needed to establish the rich data management systems that could support this analysis.

Further co-operation at the country level would help BiH to strengthen its education data. Through stronger country-level data governance, the BHAS would be able to exploit data produced by competent education authorities, and competent education authorities would be able to access better-quality data to produce more meaningful jurisdiction-specific analysis. Establishing common standards would also facilitate the country-level reporting recommended in Policy issue 5.1. At the same time, efforts to build data collection capacity at the competent education authority level would tackle "gaps" in data collection and could increase demand for education data among decision-makers. Finally, subscribing to future cycles of major international learning assessments would provide BiH with data on learning outcomes, helping the country to track performance against one of the most important measures of the effectiveness of a school system – i.e. student learning. Through these surveys' questionnaires, policymakers can also identify the variables associated with performance that can help inform policy responses.

Recommendation 5.2.1. Progressively improve country-level data governance

Country-level efforts to improve data governance have helped many OECD countries to strengthen the quality, accessibility and use of education data. The BHAS continues to improve the quality of country-level data governance in BiH and works closely with partners like Eurostat and UNESCO-UIS to build statistical capacity. However, administrative data compiled by competent education authorities is another valuable resource that should produce rich insights for system evaluation. To unlock this resource, the BHAS and competent education authorities should work together to strengthen the country-level governance of education data. In OECD countries with decentralised education systems, such as the United States, this has been achieved through establishing common data standards, creating assurances around the privacy and security of individual data, and addressing gaps in data collection, among other initiatives.

Institute an inter-agency council or board for education data governance in BiH

Data on the education system in BiH is currently collected through two parallel processes – once by the BHAS and once by the respective competent education authority. BiH does not currently have a country-level agreement on statistical concepts, definitions or information management in the field of education, and this precludes the BHAS from being able to use data compiled by education authorities. The BHAS and competent education authorities should consider establishing an inter-agency council or board to develop a set of rigorous principles and guidelines around the collection, storage and reporting of education data. This body should be chaired by the BHAS and include representatives of the competent education authorities as well as other public users of education statistics. The body could build from an existing working group that the BHAS has established to implement its project with UNESCO. This group comprises the BHAS, representatives of entity-level statistical agencies and public users of education statistics, including the MoCA, all competent education authorities, APOSO and the Agency for Development of Higher Education and Quality Assurance of BiH. The group has already carried out extensive consultations with all of BiH's entities, cantons and cities, and thus has a good picture of the landscape for reporting education data across BiH and familiarity with the stakeholders involved.

In other countries, these Boards are responsible for a range of tasks that support data quality and integrity. In the United States, for instance, the EDFacts Governing Board is responsible for identifying common standards, developing operating policies, and implementing processes for managing data. They have

helped to resolve data ownership issues, support information sharing, proactively manage data vulnerabilities, and improve the quality of data collection, reporting and use (Edfacts, 2020[30]). The Board meets once a month, and data issues are raised by members who then lead a workgroup to analyse the issue with education stakeholders and other Board members. Background information on the topic is shared in advance through a common drive to support the analysis and facilitate transparent decision making.

Establish common data standards for BiH's competent education authorities

One of the tasks of this council or board should be to develop a set of common data definitions and protocols for BiH's competent education authorities. This is common in countries with decentralised education systems, where local authorities often apply their own standards, techniques, and develop their own solutions to resolve emerging issues. By implementing common data standards, country-level policymakers can be confident that data from different administrative units have the same meaning and can be relied upon to inform country-level decision-making. Establishing standards is particularly important in countries where double shift and multi-grade schools exist, as in BiH. In these cases, authorities will need to make an additional effort to ensure that schools use common standards in their reporting.

In BiH, the council or board should develop a formal data dictionary and sharing protocol for use by competent education authorities and their schools. In particular, the body should ensure that it establishes standards that would facilitate reporting against the country-level indicator framework outlined in Policy issue 5.1. As one example, it may wish to establish common definitions and specifications to record student participation and attendance, where considerable variations in coverage and comparability currently exist. Australia, for instance, has established a national standard for reporting on student attendance, which is identified as a key performance indicator in its Measurement Framework for Schooling in Australia. This standard applies to students in years 1-10 for all government, Catholic and independent schools in Australia, and establishes the following criteria: attendance rate calculation formula; actual days in attendance (numerator); number of possible school days (denominator); level of disaggregation; data collection period; school types; student enrolment types; movement during collection period; part-day absences; ungraded students, and treatment of incidents/absences. These standards will not be legally binding, but CEAs should be encouraged to adopt them, once developed and validated by a variety of stakeholders and international experts.

Review rules around the privacy and security of individual-level education data in BiH

Another task of this council or board should be to review and refine BiH-level rules around the privacy and security of individual student and teacher data. Over time, a growing share of competent education authorities should be able to compile individual-level data in order to conduct meaningful analysis and fulfil state-level and international reporting requirements (Recommendation 5.2.3). However, the compilation of individual-level data brings risks and justifiable concerns – for instance, on who will be able to access the data, and how the data could be used, both in the present and in the future. Privacy and security is particularly important in the management of student data, since these individuals are typically not old enough to provide informed consent. In BiH, ethnic sensitivities could increase concerns around the collection of individual-level data.

Decentralised education authorities are often more inclined to report individual data to country-level authorities (and schools to share this data with their respective education authorities), if they can ensure that this data is anonymised, and that the privacy of students and teachers is protected. In the majority of federal education systems across the OECD (for instance, the United States), most personal student information stays local, and each level of governance compiles data in a different way and has different access rights. Typically, rules governing the storage, use and exchange of individual-level data are developed and established at the country level, where they can benefit from more expert input and can

access additional tools for enforcement. This has been the case in the United States and in Canada (Box 5.2).

Box 5.2. Personal privacy protection rules for education data in the United States and Canada

In the **United States**, the Federal Government has established a law to protect the privacy of student education records, known as the Family Educational Rights and Privacy Act (FERPA). Under FERPA, schools that receive federal funds can disclose directory information and de-identified data to a discrete list of authorities, but they must do this in-line with a set of guidelines designed to safeguard the personal privacy of students. Under these rules, "directory information" is information that is not considered harmful or an invasion of privacy if disclosed. De-identified data is information where the student's personally identifiable information has been removed and there is a reasonable likelihood that the student is no longer personally identifiable.

To supplement FERPA, the US federal government has established roadmaps and guidelines to help state education authorities strengthen their data protection procedures, as part of its Data Quality Campaign (DQC). One such example is the DQC's Roadmap to Safeguarding Student Data. This roadmap establishes principles for safeguarding the privacy of student data at the state level. These principles focus on the procedures and personnel practices that are in place and include:

- Policies and procedures. Levels of data sensitivity are clearly defined, and data are categorized by these levels, with appropriate differences in levels of protection depending on how sensitive the data are. Processes and practices ensure that encryption or other protection is in place during movement or transmission of sensitive or confidential data and that these protections are routinely reviewed and kept up-to-date
- Personnel. Staff annually review the student data privacy policy and provide written assurances that they will meet their data privacy responsibilities as a prerequisite to accessing data; orientations for new staff regarding data responsibilities begin soon after employment; access to student personally identifiable information is based on staff roles and responsibilities; background checks are performed on new employees that can access student information.

In other OECD countries, privacy rules have been established to govern many different areas of public life – and are thus not specific to the education sector, but do apply to it. **In Canada**, for instance, the Government has recently passed the Digital Charter Implementation Act, (2020), which has clarified and expanded rules around personal privacy protection and strengthened country-level enforcement mechanisms. One development, for instance, has been to clarify how personal information can be used once it has been de-identified, recognising that it is increasingly easy to re-identify individuals by linking sets of data.

Source: (Data Quality Campaign, 2016[31]), *Roadmap to Safeguarding Student Data: Key Focus Areas for State Education Agencies,* http://dataqualitycampaign.org/wp-content/uploads/2016/03/DQC-roadmap-safeguarding-data-June24.pdf (accessed on 15 November 2021*);* (Government of Canada, 2020[32]), *Fact Sheet: Digital Charter Implementation Act, 2020,* https://www.ic.gc.ca/eic/site/062.nsf/eng/00119.html (accessed on 1 October 2021).

In BiH, reviewing the privacy laws that govern personal data could help competent education authorities to progressively establish unique identifiers for education data that are linked to civil identification numbers (Recommendation 5.2.3). Providing the right framework for protecting personal data - aligned with EU, BiH and local level regulations - would make it easier for competent education authorities to establish unique identifiers that can be linked to richer personal data, providing more insights for system evaluation.

Renew attempts to establish a (limited) EMIS at the country level

Over time, competent education authorities should renew efforts to establish an information system that compiles and stores education data at the country level. A country-level information system would enable BiH to compile comparable and timely information on its education systems, linked to the indicator framework outlined in Policy issue 5.1. Competent education authorities could be offered an interface that provides access to additional, optional modules – and this could enable authorities without an EMIS to start compiling robust data for reporting and planning, without having to build this system from scratch.

At the same time, any initiatives here should be handled carefully – to ensure that any concerns around data management and disclosure are addressed. This is evidenced by the fact that a comprehensive World Bank project to develop an EMIS for BiH, with a budget of USD 2 million, never led to country-wide implementation due to a lack of political interest (World Bank, 2005[33]). Aspects that could be considered for a country-level EMIS in BiH include:

- **Rules and protocols.** Competent education authorities may need to conclude a memorandum of understanding (MoU) to establish a country-level EMIS. This instrument may be essential to ensure that the system is acceptable to all parties – and therefore that they report to it and it is useful for them. The MoU should articulate system features and the responsibilities of different parties, and should touch upon all issues that may be initially contentious, such as access rights and server location. In addition, the MoU should stipulate a calendar for data collection. This calendar should outline the various steps in the process and the roles of different players. The latter, for instance, could include: the dissemination of survey questionnaires; the completion of survey questionnaires at school level; the start of data capturing; the completion of the data capturing; and release of the data (UNESCO, 2020[34]).
- **Funding.** The authorities driving this project would need to identify funding for the project – both an initial lump sum to establish the system, as well as a multi-year funding stream to finance basic running costs. This funding could be requested from an international partner, and/or come from voluntary contributions provided by participating CEAs.
- **Compulsory module coverage.** The system architects should establish a set of compulsory modules linked to BiH's country-level goals' monitoring framework (see Policy issue 5.1) and international reporting requirements. In addition, system architects could develop a set of optional modules that would provide more support for system planning. These modules could be used on a voluntary basis by competent education authorities, for their own policy formulation and planning.
- **Optional module coverage.** As mentioned above, the authorities driving this project could gradually provide competent education authorities with the option of a dedicated web interfaces, which would provide them with exclusive access to certain sets of data. This option may be particularly interesting for smaller competent education authorities that do not have an EMIS in place already, such as Brčko District. These competent education authorities may wish to upload their data directly into this system, rather than developing their own separate system from scratch. This is one area in which a country-level system could bring significant value.
- **Additional functionalities.** Providing additional functionalities that make education data more accessible would enable this resource to strengthen trust and transparency in the system, and could create new pressures for competent education authorities to participate. It would also make the system more useful, and thus could strengthen these authorities' interest in contributing to it.

Recommendation 5.2.2. Commit to participate in future cycles of international assessments

BiH does not implement a country-wide external assessment of learning outcomes, nor does this look feasible in the near term, though there is scope to move in this direction (see Chapter 2). Given this

absence of reliable country data, BiH's ability to participate in international learning assessments is more important. In comparison with other countries in Europe and other emerging economies, BiH stands out for the lack of sustained participation in PISA or other major surveys, such as TIMSS and PIRLS.

Producing data on learning outcomes is a feature of evaluation frameworks for education in most OECD countries because it provides information on the final results that an education system is trying to achieve (OECD, 2009[35]). Large-scale assessment results are a commonly-used reference for measuring learning outcomes. BiH's lack of data on learning outcomes inhibits the country from setting concrete policy goals, but it also weakens policy planning at the competent education authorities level. Few competent education authorities have produced data on learning outcomes to inform the implementation of major policy changes. In RS, for instance, the ministry conducted an analysis of learning outcomes to inform whether it should reform the entity's primary school curriculum. The analysis confirmed that the existing curriculum supported the acquisition of declarative rather than functional knowledge, and the curriculum was revised accordingly (USAID, 2016[36]).

Establish a formal commitment to participate in at least two rounds of PISA and TIMSS

Participation in international assessments can produce data on learning outcomes until countries have built domestic capacity to implement their own more regular, customised assessments. However, BiH's participation in international assessments is not regular, and BiH recently missed its deadline to participate in PISA 2022 due to a political deadlock. To guarantee periodic data on on learning outcomes, BiH should establish a formal commitment to participate in at least two rounds of PISA (in 2024 and 2027) and TIMSS Grade 4 (in 2023 and 2027). By participating in TIMSS at Grade 4, BiH would produce learning outcomes data linked to the start of the second cycle of primary school – allowing for more course correction. Should the entities/cantons decide that they would like more entity-specific outcomes data, they could request to over-sample in these assessments. Securing participation in future international assessment cycles could enable BiH to include a measure of learning outcomes in its country-level indicator framework – for instance, an indicator on the share of students below Level 2 in PISA.

Progressively explore options for piloting a standardised assessment in FBiH or RS

In a number of OECD countries with decentralised education systems, participation in international assessments has strengthened demand for data on learning outcomes and provided comparative, objective information on student achievement that can then be disaggregated to provide insights for delegated education authorities. This has been the case in Australia, for instance, where participation in PISA has facilitated standardised reporting on learning outcomes at the country level since 2001. Since then, Australia has published a national report presenting PISA results disaggregated by school sector and by state and territory (Santiago et al., 2011[10]). In BiH, too, participation in PISA and other international studies would provide comparative data that can be disaggregated for each competent education authority, and presented with analysis in a country-level report (see Recommendation 5.1.3). Over time, many education authorities in the OECD have seen the value of having comparative data on their learning environments and outcomes, and have started to develop their own large-scale assessments. Australia, for instance, adopted a standardised, country-wide assessment in 2008, that provides nationally comparable student achievement data linked to its long-term goals. A similar trend can be observed in BiH's neighbouring countries. Albania, North Macedonia and Serbia have participated in at least three of the last four cycles of PISA, for instance, and are now developing or have recently developed a country-level standardised assessment that can provide more regular and country-specific data on learning outcomes. As BiH secures its participation in international assessments, entity bodies may begin to explore options for developing their own standardised assessment, starting with a pilot. In the case of the FBiH, this could be for optional participation by the cantons.

Recommendation 5.2.3. Build competent education authorities' capacity to compile high-quality data

Efforts to strengthen co-operation at the country level should be complemented by targeted support to strengthen data collection capacity in specific competent education authorities. These steps will be necessary to address "gaps" in data collection that would hamper country-level and international reporting. Targeted support could also raise demand for education data among decision-makers within these authorities. Alongside targeted technical support and outreach from the BHAS, BiH's governance body for education data (Recommendation 5.2.1) should help competent education authorities to establish a data expert position in each of their jurisdictions and progressively build capacity to implement the use of identification numbers to compile student and teacher data.

Identify the most critical gaps for reporting on country-level goals at the competent education authority level and devise an action plan to address them

While the BHAS is continuing to strengthen education data reporting within BiH's administrative unit, BiH may need a more deliberate strategy to support reporting at the country level (Recommendation 5.1.3). In order to improve the quality and availability of country-level and competent education authority-level education data, the BHAS and other partners should map the data collection and management capacities of each competent education authority, and identify critical gaps where they exist. Implementing this exercise while the Conference's Task Force is elaborating a measurement framework for their common goals could help to ascertain the information that could be collected, reliably, from all units, and the extent of capacity building needs in each authority. Once a measurement framework has been established, the BHAS should draw up a plan for capaciy building activities, prioritising the competent education authorities that have the greatest needs and the largest school systems.

Enable each competent education authority to create at least one data analyst position

To strengthen their collection and use of education data, BiH's competent education authorities will require at least one expert that can maintain and improve the country's information system, flag potential data errors, and has quantitative analysis skills for processing data and creating thematic reports. This is a requirement to manage EMIS in most OECD and peer countries. In Georgia, for example, the EMIS employs five statisticians solely for responding to data and research requests, in addition to department leadership, administrative support and software developers who manage the system (Li et al., 2019[37]). Where necessary, BiH's governance body for education data (Recommendation 5.2.1) should help competent education authorities to unlock funding for this position. The BHAS could also progressively offer technical assistance and training opportunities to these staff members, to develop their technical skills and remain up-to-date with changes in the EMIS, user needs and changing technologies (Abdul-Hamid, 2014[38]), potentially in partnership with Eurostat, UNESCO-UIS and other development partners.

Support the adoption and use of individual identification numbers by competent education authorities

Over the past few years most of BiH's regional peers have integrated unique identification numbers into their EMIS. Using unique identifiers has helped these countries enhance the analytical functions of education data and it has provided insights to support progress against national education goals. Through linking unique identifiers to civil identification numbers, these countries have been able to additionally link education data to information on an individual's background characteristics. This functionality enables countries to monitor the education outcomes of vulnerable demographic groups, and thus more easily report progress against the equity aspects of SDG4 and – in the case of EU neighbourhood countries – against the EU's inclusive education targets.

In BiH, the implementation of unique identifiers for education data is hampered by particularities of the country's unique identification system. Under BiH law, the responsibility for issuing identification numbers has been delegated to the entities, via their Ministries of Interiors. In the FBiH, this responsibility has subsequently been delegated to the cantons. Currently, RS uses a special identification number (ID) to store student-level data in its EMIS, but this ID is not linked to a civil identification number. According to data collected by the review team, no other competent education authority currently uses unique identifiers.

The Ministry of Civil Affairs and competent education authorities should work to identify the challenges that competent education authorities face in implementing unique identifiers and linking these to a civil identification number. This analysis could be carried out in consultation with the EU as a technical assistance project through BiH's Pre-Accession Assistance Programme. This topic should be a development focus, because learning losses from COVID-19 have impacted certain demographic groups more than and differently to others. However, education authorities are not able to obtain data on access to and participation in education by gender, ethnic origin, disability and level of education, according to a rapid assessment undertaken by UNICEF (UNICEF, 2020[39]). In undertaking this study, the experience of particular jurisdictions could be explored. West Herzegovina Canton, for instance, is currently developing a new EMIS, in partnership with the University of Mostar and all cantons that cover the Croatian language. This system will purportedly implement unique identifiers, and these identifiers should also be linked to an administrative ID. These efforts should not involve the sharing of individual data, and should continue to ensure that personal privacy laws, at all levels, are respected.

Policy issue 5.3. Strengthening demand for system evaluation to propel system improvement and increase accountability

BiH's recent participation in two international learning assessments has generated comparative, quality data on learning outcomes, and sparked international and country-wide debate on the system's performance. BiH's competent education authorities have also established links with a handful of "hub" universities – such as the University of Mostar, the University of Banja Luka and the University of Sarajevo – that provide support for different research and development projects. At the same time, there is surprisingly little domestic demand for data and analysis on system performance, not only among unit-level education authorities, but also among local researchers and the wider public. Though outcome data is now available through TIMSS and PISA, minimal secondary analysis has been conducted and political tensions jeapordise future participation in these studies.

BiH's decentralised system could be leveraged to support policy experimentation and mutual learning. BiH also has a sizeable diaspora and development partners that could be mobilised to produce outward-looking analysis and debate on how its education systems are performing. Investment in system-level data and outcomes monitoring, as outlined in Policy issue 5.2 would support these efforts. To build a stronger culture of education research in BiH, the Conference should consider creating an international scholarship programme for research in education, with a dedicated pool of funding. To improve accountability and local scrutiny, the Conference should establish citizen assemblies, that would meet on a periodic basis to provide input on implementing important reforms.

Recommendation 5.3.1. Create an international scholarship programme for research in education

Objective, policy-relevant and methodologically-sound research and analysis on the education system is an important source of governance information for policymakers and other sectoral stakeholders. This resource is particularly important for the governance of education, where the costs of negative effects from major reforms are high, but may take a while to manifest clearly. In BiH, many competent education authorities do not make active use of research and analysis on BiH's education system to guide

policymaking, and this information is not widely available. There have been no concerted efforts at the country level to co-ordinate, consolidate and extensively commission research in education, and most competent education authorities do not have the resources to do this independently.

This issue is not limited to BiH – it has been encountered in other decentralised education systems like Switzerland. In Switzerland, for instance, research findings were used for some time to formulate policy, but in a way that was not systematic (OECD, 2006[40]). Rather, the use of education research to inform policy depended strongly on each canton's general environment – e.g. the existence and quality of local universities and other research bodies. Recognising this, Switzerland has made a concerted effort to support the more systematic production and use of education research since the 1960s. One of the main instruments it chose was to create country-level institutions like Swiss Co-ordination Centre for Research in Education, which plays an important role in co-ordinating, compiling and disseminating education research (OECD, 2006[40]). BiH may choose to initially create a scholarship programme for research in education, leveraging expertise and funding from international partners.

Elaborate a proposal for an international scholarship programme for research in education

To ensure that research findings from the scholarship programme are used systematically to inform policy, the Conference's Task Force should "own" the programme and elaborate its main features. A first step would be to elaborate a proposal for the scholarship programme that outlines a general picture of its design, its benefits for advancing education policy in BiH, and an indicative estimate of its funding needs. This proposal should be elaborated following a consultation with some of BiH's major research hubs, such as the Universities of Sarajevo, Banja Luka and Mostar, as well as the country's Pedagogical Institutes.

Approach development partners that can provide sustained funding

A second step would be to identify a source of sustained funding. The Conference's Task Force may wish to initially approach development partners that have established relationships with BiH's main universities and other research hubs, such as USAID, which partnered with the Universities of Sarajevo, Mostar, Banja Luka, Zenica and Tuzla, for instance, through its Enhancing and Advancing Basic Learning and Education in Bosnia and Herzegovina project (USAID, 2016[41]). Through these links, the programme's architects could ensure that the research projects it sponsors are coherent with the topics already being researched in BiH's universities and other research hubs, and that findings from these research projects link back into these bodies' own research activities. In approaching potential donors, it would be important to ascertain the level of funding that might be available, since this would likely determine the scheme's design features.

Alongside development partner funding, BiH's Pedagogical Institutes should be encouraged to contribute a nominal amount to the programme's funding. This contribution would signal the development of research on the education system as a core mission of the Pedagogical Institutes, and provide the Pedagogical Institutes with a stake in setting research priorities and selecting projects. The latter would be enriched by information that Pedagogical Institutes have acquired from interactions with schools and from observing classroom practices. Findings from the scholarship programme should also be helpful for Pedagogical Institutes. During interviews with the Pedagogical Institute of Republika Srpska, for instance, the review team heard that the Institute would like to strengthen capacity for formative assessment in RS schools. To accomplish this task, the Institute may benefit from having more evidence and analysis on effective formative teaching and assessment approaches for students based on characteristics like age and socio-economic status. This information would help the Institute develop a more nuanced and targeted work programme, and thus continue to advance the relevance, effectiveness and efficiency of its work.

Elaborate the scholarship programme's design

While the source and level of funding for the scholarship programme will likely influence its design features, the Task Force (spearheaded by APOSO) should lead its design, to ensure that it remains relevant for BiH. In elaborating the programme's design, the Task Force may wish to consider the following features:

- **Limited yet competitive eligibility criteria**. Limiting eligibility criteria to just three to four conditions can help expand the pool of potential candidates. However, eligibility criteria should help to filter the most competitive candidates. For instance, candidates may need to demonstrate outstanding academic performance during undergraduate and postgraduate studies, including a proficiency in research methods and a final thesis.
- **A competitive selection process.** The selection process should be competitive and have transparency mechanisms built in. For instance, candidates could be selected through two stages – the first involving an assessment by representatives of the Conference's Task Force, the second involving an assessment by an international selection panel. Any special weights ascribed for selection should also be made public – for instance, the programme may wish to assign special weights to research proposals addressing cross-entity education issues or comprised of cross-entity team members.
- **Clearly-defined benefits and expectations.** The benefits and expectations of research grants should be clearly-defined, to ensure accountability. For instance, the programme may stipulate requirements to participate in specific events, to fulfil all requirements of the host university, to notify the programme's administrators of any changes to their situation, and to fulfil all necessary reporting as requested by the programme's administrators.

Provide APOSO with a mandate to administer the scholarship programme

APOSO would be well-placed to administer the programme. As an independent, state-level expert body, it would have an informed perspective on the most critical policy questions around education reform in BiH, and it could select research projects on that basis. The Conference's Task Force, which should also comprise a representative of APOSO, should identify a set of pressing research topics for BiH. To identify topics, the Task Force could also consult with BiH's major universities, such as the Universities of Sarajevo, Banja Luka and Mostar. These universities have a history of constructive collaboration with BiH's education authorities, and also provide initial teacher education. In addition, Pedagogical Institutes in BiH should help identify research projects for the programme, providing information to address the critical quality development challenges they observe in their interactions with schools. Potential research areas could include modalities for school funding, student assessment, and effective teacher policies (for an example of research on teacher policy linked to PISA, please see (OECD, 2018[42]).

Ensure that research findings are reported to the public and fed into policy planning

Research findings from the programme should be published by the Task Force, potentially via a web portal dedicated to education in BiH (Recommendation 5.1.3). The Task Force could preface these reports with remarks on how the findings will be used to support policy planning in BiH and to provide more accountability information to the public. In addition, APOSO could organise an annual conference for education authorities and HEIs (as well as other research bodies) at the start of each year (to follow the release of entity-level budgets) to present key findings from research carried out through the programme, as well as any other important recently-released studies. These conferences could be general or thematic, but they should provide education authorities with an easy opportunity to access recent research on the education sector that is relevant to BiH, enable them to ask questions, and invite them to offer their own feedback on the findings and to highlight critical challenges that they currently face. The information

gathered should help competent education authorities to develop their annual action plans, identify areas for common projects, and support the Task Force's annual planning.

Recommendation 5.3.2. Establish citizens' assemblies to provide input for planning the implementation of important reforms

Education remains a politically sensitive topic in BiH, which can create roadblocks for reform. At the same time, most BiH citizens do not have the opportunity to engage in decision-making around education policy nor do they have a comprehensive picture on how the education system is performing. Parents, in particular, lack access to information that wil help them reflect on the progress their children made in school, the educational choices available and how to engage more broadly with the education system. Trust in government is also very low. According to the 2019 edition of the The Gallup World Poll survey, only 23% of people in BiH report confidence in their government. This is the lowest level in the Western Balkans and has deteriorated at the fastest rate since 2007 (OECD, 2020[43]).

In a number of OECD countries, policymakers have used citizens' assemblies to deliberate on, and get buy-in for, important issues and initiatives. These processes aim to address complex policy problems, particularly those that will have an important impact on future generations, through an inclusive discussion (OECD, 2020[44]). Citizens' assemblies have served as an important tool for deliberative democracy in Ireland, where the government is establishing a Citizens' Assembly on the Future of Education. Ireland faces pressure to reorganise its school network, to ensure equity-based provision of education, and to make important decisions on curriculum and assessment reform, particularly in the wake of COVID-19. Through the Citizens' Assembly on the Future of Education, Ireland aims to achieve "a shared understanding of the value of education," and to address "how education can prepare people of all ages to meet new societal, environmental, technological and economic challenges" (Education Matters, 2020[45]). Importantly, the initiative aims to ensure that "the voices of young people and those being educated are central" (Education Matters, 2020[45]). In BiH, citizen assemblies should strengthen trust in the education system, show that this system is accountable to the public it serves and provide the public with a role in shaping its development.

Structure a format for assembly meetings

Citizen assemblies typically work well for three types of problem: i) value-driven dilemmas; ii) complex problems that require trade-offs; and iii) long-term issues that go beyond electoral cycles (OECD, 2020[44]). Since citizen assemblies take time and resources to organise, they should only be used for public policy questions where the costs of action and/or inaction are high – in BiH, for instance, a topic for deliberation could be around the allocation of school funding, or the assessment and certification of students (see Chapter 2). To ensure that citizen assemblies serve to diminish rather than amplify the role of politics in debates around education and can take a broader perspective on education challenges, these assemblies should be organised at the country level, but they should ensure fair representation of citizens from different jurisdictions (see below).

In terms of their duration, most citizens' assemblies across the OECD do not meet for less than four full days in-person, unless a shorter time frame can be justified (OECD, 2020[44]). This standard duration is designed to give participants time to review evidence, hear the views of their co-assembly members, and reflect on this information in-between meetings. In BiH, however, a shorter duration may be necessary and virtual meetings should be considered to circumvent barriers to attendance. The Task Force should decide on the occurrence and exact format of citizen assembly meetings. The Task Force should also ensure that ample imformation is provided to participants in order to facilitate constructive dialogue.

Determine the composition of assemblies

Citizens' assemblies aims to reflect the broad characteristics of the country's electorate – usually, the electorate's gender, ethnicity, social class, and the area in which they reside. Candidates are selected through random selection and stratified sampling, and this method attempts to include those that may have been traditionally excluded from public decision-making (OECD, 2020[44]). Where policymakers have capacity, stratification can also be made on attitudinal criteria. In certain instances, some OECD countries over-sample particular demographics during the random sampling stage, in order to achieve representativeness (OECD, 2020[44]). In BiH, organisers should ensure that stratification takes into account a fair representation of citizens from different administrative units, to ensure that the direction provided by citizen assemblies reflects local contexts and concerns. In addition, organisers may wish to consider additional background criteria during the sampling process – such as including the representatives of groups that advocate for those with learning difficulties and/or other disabilities. Ensuring that the education system caters for students with learning difficulties and/or other disabilities will be a critical challenge across most of BiH over the years ahead, particularly as these students appear to exhibit particularly stark learning losses following the COVID-19 pandemic and related school closures (UNICEF, 2020[39]).

Establish how assembly proceedings will be used to inform policymaking

In order to be productive, citizens' assemblies should influence public decisions. Assembly organisers should ensure the utmost transparency during this process. For instance, the main conclusions of the assembly's deliberation should be made public, and the commissioning authority (here, the Conference of Education Ministers) should publicly commit to respond to or act on participants' recommendations in a timely manner. The assembly's conclusions and the Conference's responses could be published via a web portal dedicated to education in BiH (Recommendation 5.1.3). Ideally, the Task Force should publish subsequent updates on whether and how it has implemented the assembly's recommendations through a regular public progress report (OECD, 2020[44]).

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Part II Competent education authority profiles

6 Brčko District

Context and features

With a population of over 80 000, Brčko District represents less than 1% of the territory of Bosnia and Herzegovina (BiH), and is on average more densely populated than the rest of the country (Table 6.1). Nearly half of the district's population lives in the city of Brčko, the centre of the administrative unit. The District is one of the richer regions of the country, and its economy is more closely linked to trade than that of many other regions of BiH, as Brčko District has historically taken advantage of its strategic location near the three-party border of BiH, Croatia and Serbia. Due to its unique structure of governance within Bosnia and Herzegovina, Brčko District faces particular challenges, especially when it comes to education. From the outset, the district ensured a harmonised curriculum for its population, while in some other parts of BiH, curricula is still administered differently among ethnic lines. The district's education system, however, displays a similar structure of governance to that of other self-governing administrative units of BiH of similar size.

Education policy in Brčko District is governed by the district's Department for Education. The Pedagogical Institution, which is situated within the Department for Education, is responsible for a broad range of tasks, including the pedagogical supervision of schools, teacher appraisal and planning teachers' professional development. The institution is also responsible for developing curricula and monitoring their implementation, proposing strategies for the development of schooling, and planning activities for children with disabilities. The Brčko District education system is fully funded by the district's public budget and spending is not differentiated by education level, except in cases where secondary school may require additional funds to cover the costs of practical classes.

Over recent years, education spending in Brčko District has increased, mainly to cover the salaries of a growing teacher cohort and the operational costs of school buildings constructed by the Department of Education. According to district authorities, the government spends the equivalent of over 18% of the region's GDP on education, one of the largest shares in the country when compared to other administrative units of BiH. The Brčko District recently established its first development strategy, covering the 2021-27 period, which defines improving access to quality education and training as one of its strategic goals. Specifically, its main priorities include modernising schools and teaching methods, curriculum reform, reaching full participation in quality pre-school education and improving the district's lifelong learning system. The district also has an indicator framework with a set of targets to help monitor progress towards strategic goals for overall development and sectoral improvement. Specific indicators include progress towards cutting the cost of maintaining school facilities.

Table 6.1. Key facts: Brčko District and its education system

Economic Indicators
Based on most recent available data

	BD	BiH share	BiH average
Surface area	402 km2	0.8%	..
Population	82 684	2.5%	..
GDP (PPP) per capita	USD 6 257	..	USD 14 509

Schooling Indicators

	Pre-primary	Primary (ISCED 1-2 or age 6-14)	Secondary (ISCED 3 or age 15-18)	
			General	Specialised
No. of children or students	776	5 969	394	2 277
No. of schools	5	36	1	3
No. of teachers	93	491	44	203

Note: Population figures are a 2020 estimate by BHAS based on the 2013 BiH population census. GDP (PPP) per capita figures are for 2020. BiH average GDP (PPP) per capita is in constant 2017 international $. Specialised secondary school programmes represent vocational, technical or arts and religious programmes.
Source: (BiH, 2021[1]), *Country Background Report for the OECD Review of Evaluation and Assessment in Education: Bosnia and Herzegovina*, Unpublished. (BHAS, 2021[2]), *Bosnia and Herzegovina in Figures 2020*; https://bhas.gov.ba/data/Publikacije/Bilteni/2021/NUM_00_2020_TB_1_EN.pdf (accessed on 28 January 2022); (BHAS, 2021[3]), *Statistical Bulletin of Brčko District of BiH*, https://bhas.gov.ba/data/Publikacije/Bilteni/2021/BRC_00_2021_B4_1_BS.pdf (accessed on 28 January 2022); (BiH, 2021[1]), *Country Background Report for the OECD Review of Evaluation and Assessment in Education: Bosnia and Herzegovina*, Unpublished; (World Bank, 2022[4]), *World Bank Open Data*, https://data.worldbank.org/ (accessed on 17 January 2022).

Schools in Brčko District have very little autonomy. The Department of Education is responsible for overseeing the recruitment of principals, pedagogues and teachers, and appointments are made by the mayor, based on the decision of a recruitment panel appointed by the Head of the Department of Education and the School Board. The Head of the Department of Education also decides on the promotion of teachers and pedagogues. The budget for each school is determined through agreement between the Head of the Department of Education and each school principal, based on a proposal that is prepared by the principal, outlining the number of students and teachers in the school, the size and condition of the school, and its specific resourcing needs. Brčko District intends to provide a higher degree of autonomy to secondary schools, as one of its key planned reforms over the coming years. All primary and secondary schools in Brčko District closed from March 2020 because of the COVID-19 pandemic, and began to implement online remote learning. While schools reopened for the beginning of the 2020/21 school year but with some short periods of closure during November and December of 2020 and April of 2021 – the risk of student disengagement in school and learning loss continues to be a threat. At the time of writing, Brčko District was not planning to conduct an evaluation of the education process or assessments of student learning in the aftermath of the school closure period or in the face of ongoing challenges presented by the COVID-19 pandemic. The lack of evidence on education during the pandemic may present a challenge for recovery efforts.

Strengths and challenges

Brčko District has signalled a commitment to develop its teacher workforce and its education system more generally. At the same time, the district suffers from a lack of resources and long-term strategic planning,

which prevent it from initiating and maintaining the implementation of reforms – though it is making progress, as demonstrated through the launch of its first development strategy. The district has an established history of collaboration with state-level bodies and other competent education authorities. It could continue to collaborate actively in cross-authority initiatives to develop its policies and tools for evaluation and assessment in education.

Brčko District is committed to developing its teacher workforce and benefits from collaboration with other BiH authorities and agencies

Brčko District has established criteria for systematic teacher appraisal. The district's legal framework mandates that all teachers must undergo a six-month probationary period upon joining a new school, and its ordinance on the appraisal of teachers, professional staff, teaching assistants and pre-school teachers stipulates that the district's Pedagogical Institution should conduct regular performance appraisals. The district has established two professional grades, and promotion is supposed to be decided on the basis of the results of regular performance appraisals. Previously, criteria for this appraisal process for promotion were based on the BiH professional teacher standards, which are aligned with contemporary research and best practices on quality teaching. In line with the Framework Law on Primary and Secondary Education in Bosnia and Herzegovina, teachers also have a duty to develop professionally, and each year the Pedagogical Institution defines a professional development programme for teachers on behalf of the Head of the Department of Education.

Brčko District benefits from regular and productive collaboration with other actors across BiH, including state-level actors such as the Agency for Pre-school, Primary and Secondary Education (APOSO). This collaboration takes place not only at the policy level, but also among school-based actors. At the policy level, the district reports frequently using templates developed by BiH-level bodies and other competent education authorities to develop its own regulations and tools. At the school level, secondary school teachers regularly attend professional development workshops in other parts of BiH. Numerous stakeholders reported that these activities are beneficial, enabling them to access internal and international expertise and exchange experiences with other education actors across BiH.

Brčko District has limited resources and information to guide education policy and system improvements

The design and implementation of education policy in Brčko District is limited by a lack of resources and information. This context inhibits planning, but it also hampers the application of instructions and tools once they are designed. For example, the Pedagogical Institution has been unable to carry out regular performance appraisals of teachers because it is unable to hire qualified personnel to conduct these appraisals. As a result, no such appraisals have been conducted for the past five years. While Brčko District initially attempted to establish the BiH-level teacher standards as criteria for promotion appraisal, this initiative has been discontinued due to a lack of staff to conduct appraisals and a lack of funds to pay for salary increases linked to promotions.

A key factor hindering the improvement of the education system in Brčko District is that the district does not currently have a clearly defined set of learning standards in place. At the same time, and partially due to the absence of learning standards, Brčko District's assessment practices remain focused on summative and normative approaches to assessment, rather than assessment for learning and the measurement of more complex, and higher order thinking skills. This focus is reinforced by its rulebook, which was last revised in 2010. As a result, schools and teachers have little experience of using student assessment to improve student learning, and resources or tools are not yet available to help them build this competency.

A further factor limiting a more strategic approach to policymaking in Brčko District is a very high turnover of departmental heads – due to the fact that this is a politically-appointed position, equivalent in status to

that of the Minister of Education. Since 2000, the district has purportedly had 16-17 heads of the Department of Education, which at times have only remained in place for three to four months. In addition, the district has access to very little data and research on system performance to guide policymaking, which could help policymakers to obtain a more structured, long-term approach. It does not administer external assessments of student learning, either for monitoring purposes or for certification, which will make it difficult to understand the extent to which students are developing core competences and mastering their curriculum. It has also not established a robust education management information system (EMIS), which could be used to easily access data and monitor system trends. The district has only recently begun to formulate strategic goals for its education system.

Policy recommendations

This review provides recommendations that are relevant for Brčko District, as well as for other competent education authorities in BiH. However, the following points may be particularly salient for Brčko District:

Address bottlenecks to realise performance-based hiring and career progression for teachers

Financial constraints currently prevent Brčko District from rewarding and incentivising teachers by providing salary increases in line with the progressive career structure. Resource constraints also hinder the district's ability to hire expert appraisers to evaluate teacher performance objectively, in order to inform career advancement decisions. To address these challenges, Brčko District should adjust local laws to no longer provide salary increases based on years of service alone but direct these resources instead towards supporting a merit-based career and appraisal structure. In addition, the district should ensure that clear criteria are in place to guide the recruitment and promotion process, and that safeguards are present to ensure that recruitment and promotion processes are made on an objective basis. In the case of hiring, for instance, this could be achieved through an examination, or through requiring that recruitment decisions are validated by an external, objective actor.

Clarify learning expectations and realign assessments with these standards

Clearly-defined learning standards are essential to clarify what students are expected to know and be able to do at different levels of schooling. They are essential to help teachers and schools improve their practice, and student performance. Brčko District's curriculum emphasises the importance of students developing core competences, which sets the right direction for developing a more formative and competency-based approach to education, as encapsulated in the learning standards developed by APOSO (Chapter 2). Brčko District would benefit from adopting these standards, and reviewing its curriculum to ensure that it is in line with expectations set by them.

At the same time, the district should also ensure that its assessment practices align with goals set out in new learning standards. For instance, it should begin to revise its rulebook on student assessment, to change the focus of classroom practice and recognise a balanced set of assessment purposes that support student learning. Participating in the optional BiH Matura, as recommended by this review, could also help change the focus of classroom practice, providing a way to externally and objectively certify student achievement at the end of their schooling period.

In parallel to these two measures, district authorities should continue to build up teachers' formative assessment literacy – for instance, by supporting a set of practicum schools to provide training to mentor teachers on student assessment (Recommendation 2.1.3), and by providing resources to support teachers in implementing different types of assessment.

Improve information management in order to facilitate system evaluation

Brčko District has limited information to inform education policy and provide public sector accountability. While some school-level data is compiled through the submission of schools' annual work plans, the Department of Education requires more- and better-quality data to effectively steer improvement in the school sector, as well as to progressively build schools' capacity to assume more leadership for improvement. In order to ensure that it has the information it needs, the Department of Education should identify a framework of critical indicators for system evaluation. This should be used to inform its data development efforts, as well as to reduce the burden of data reporting on schools. The district may decide to include core school quality indicators (Policy Issue 4.1) in this framework, helping to compile data that would provide insights on school practices and performance. These new indicators could help authorities to track how the education sector is performing against the goals of the district's new Development Strategy, and to identify intervention priorities. Brčko District should therefore also participate actively in any state-level initiatives to develop these indicators, which it could first pilot in secondary schools.

At the same time, in order to ensure that it can effectively use the data it compiles, the Department of Education should ensure that it has an adequate information system in place to store this data and provide for easy access. This system will be essential to ensure that data can be used to design policy and monitor system performance. It will also be a resource for external researchers, who could make use of this and other data to produce policy insights for Brčko District. As a priority, therefore, the Department of Education should work to improve its information management system. In the longer run, this could be realised through a dedicated interface linked to a BiH-level EMIS (Recommendation 5.3.1).

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7 Central Bosnia Canton

Context and features

Central Bosnia Canton (CBC) has a GDP per capita that is similar to the average of Bosnia and Herzegovina (BiH) (Table 7.1). The canton's traditional economic sectors include agriculture and trade; there are some deposits of natural resources that support industry (BHAS, 2021[1]). In terms of surface, CBC is the fifth largest of the ten cantons in the Federation of Bosnia and Herzegovina (FBiH) and with 80.2 inhabitants per km², the population density is slightly below that of FBiH average (89.1 inhabitants per km²). The canton's Ministry of Education, Science, Youth, Culture and Sports has filled 30 out of 40 of its staff positions, creating capacity constraints for governing education policy from the pre-school to higher education level, as well as policies related to culture and sports. There is also a material and financial affairs section, which has nine employees in total. This profile examines the context and features of Central Bosnia Canton's evaluation and assessment system for education and highlights policy recommendations that can help strengthen this system to improve teaching and learning.

Notably, CBC is one of only two cantons in FBiH without its own pedagogical institute. In other parts of the country, pedagogical institutes or their equivalent are typically responsible for overseeing the development and implementation of curricula, the use of textbooks and other school and classroom practices. In CBC, the ministry is responsible for establishing primary and secondary school curricula and has a specialised Department for Education, with six staff members who are responsible for supervising education institutions. These include an assistant minister, two expert advisors for pre-school and primary education, two expert advisors for secondary and higher education and one administrative worker. The Department for Education is also planning to hire two more staff employees. Due to limited capacity in the ministry and the lack of a pedagogical institute, CBC draws on experienced teachers and other cantons to provide its schools and teachers with pedagogical support.

Primary and secondary schools in CBC are financed directly from the cantonal budget, including the cost of salaries, social contributions, capital investments, maintenance and other expenses related to school operations (BiH, 2021[2]). The canton's school funding formula is based exclusively on the number of teachers a given school employs, without regard, for instance, to the number of students or classes, or to the location or operating context of the school (ibid). This is the case in several other BiH jurisdictions and risks leading to resource inefficiencies since the actual needs of a school are not considered in determining their budgets. Moreover, the ministry reports challenges in terms of managing the surplus of teachers in the face of a declining student population. Despite these considerations, there have been no recent changes to the canton's school funding model. However, in recent years, the cantonal government introduced a programme to provide free textbooks to all primary school students, as well as a programme to finance 150 hours of free pre-school education prior to entry into primary school (BiH, 2021[2]). While such initiatives have the potential to improve educational equity, enabling schools to innovate and implement their school development plan will likely require targeted resource allocations.

Central Bosnia Canton's education strategy is covered in the Development Strategy of CBC for 2021-2027, which was adopted in October 2021 (CBC, 2021[3]). Key education goals include increasing coverage of pre-school education and reforming secondary vocational education to help guide students to pathways

that align with labour market demand. The canton also reported to the OECD review team that it plans to update education legislation and adopt policies commonly found in other European education systems, such as supporting the instructional leadership of school principals and introducing new rulebooks on teacher career paths and professional development. However, human and financial capacity within the ministry make it difficult to implement reforms and develop a specific strategy for the education sector.

Similar to other administrative units in BiH, schools in CBC are managed by a school principal and governed by a school board. While schools have some flexibility in terms of hiring and dismissing teachers, the ministry oversees staffing decisions (BiH, 2021[2]). When it comes to the pedagogical autonomy of schools, public secondary school programmes are developed jointly by canton authorities, students, parents and guardians, and teachers of the school, with input from the ministry (Ministry of Education, Science, Youth, Culture and Sport of the Central Bosnia Canton, 2001[4]). Public primary schools have relatively less flexibility, as the ministry maintains exclusive control over the design of primary school programs (ibid.). The adoption of curricula is regulated by the Law on Primary and the Law on Secondary Education, which are harmonised with the provisions of the BiH Framework Law on Education.

During the COVID-19 pandemic, authorities in CBC took a number of measures to facilitate learning throughout the duration of the health crisis. Teaching continued online, with activities organised for children in pre-school education. However, canton authorities also significantly rebalanced the administrative unit's education budget due to Covid-19, with cuts for the 2020 budget estimated to be one of the highest among cantons of BiH, and second only to Sarajevo Canton (UNICEF, 2020[5]). Cuts mainly concerned utilities and the provision of small inventory, as well as transportation costs in the case of primary schools (ibid).

Table 7.1. Key facts: Central Bosnia Canton and its education system

Economic Indicators
Based on most recent available data

	CBC	BiH share	BiH average
Surface area	3 189 km2	6,2%	..
Population	254 686	6,7%	..
GDP (PPP) per capita	..	..	USD 14 509

Schooling Indicators

	Pre-primary	Primary (ISCED 1-2 or age 6-14)	Secondary (ISCED 3 or age 15-18)	
			General	Specialised
No. of children or students	988	20 009	1 254	6 615
No. of schools	16	141	25	
No. of teachers	76	1 935	873	

Note: Population figures are a 2020 estimate by BHAS based on the 2013 BiH population census. GDP (PPP) per capita figures are for 2020. BiH average GDP (PPP) per capita is in constant 2017 international $. Specialised secondary school programmes represent vocational, technical or arts and religious programmes. Data refers to the number of programmes within independent and mixed schools.
Source: (BiH, 2021[2]), *Country Background Report for the OECD Review of Evaluation and Assessment in Education: Bosnia and Herzegovina*, Data is unpublished and self-reported by the Central Bosnia Cantonal government. (BHAS, 2021[1]), *Bosnia and Herzegovina in Figures 2020*, https://bhas.gov.ba/data/Publikacije/Bilteni/2021/NUM_00_2020_TB_1_EN.pdf (accessed on 28 January 2022);
(World Bank, 2022[6]), *World Bank Open Data*, https://data.worldbank.org/ (accessed on 17 January 2022).

Strengths and challenges

There are several policies in CBC that aim to enhance the quality of the education system. For example, the canton is the only competent education authority covered by this review that requires teachers to devote one hour of a 40-hour work week to professional development during school time (e.g. observing classes, providing support to colleagues, etc.) (MESCS of the Central Bosnia Canton, 2002[7]; MESCS of the Central Bosnia Canton, 2002[8]). Other jurisdictions in BiH do not facilitate this type of structured, professional learning within schools. Central Bosnia Canton is also one of the few jurisdictions with legislation requiring that every school be subject to general supervision within a certain period. However, the canton lacks clear standards for student learning and school quality, as well as a dedicated strategy for the education system. Considering CBC is one of only two cantons in FBiH without a pedagogical institute, and the limited human and financial capacity of the ministry, developing the tools and policies that can support teaching and learning often remains a challenge.

The canton has introduced a new rulebook on the assessment, advancement and evaluation of school teachers

Appraisal procedures for the purpose of promoting teachers in Central Bosnia Canton have been prescribed and standardised since 2013. Similar to other jurisdictions in BiH, the canton has a four level career structure for teachers that ranges from “teacher” to “senior counsellor.” In 2021, CBC introduced a new rulebook on the *Assessment, Advancement and Evaluation of Teachers in Primary and Secondary Schools*, which sets out the criteria and methodology for conducting teacher appraisal (CBC, 2021[9]). This is important considering that a five-member commission including the principal and other school staff are responsible for appraising their own colleagues for promotion. While this arrangement risks jeopardising the objectivity needed to ensure credible judgements of teachers’ performance, the canton’s new rulebook requires that appraisal commissions use multiple sources of evidence, including years of experience, extra-curricular professional work, personnel files (e.g. professional development certificates), and evidence of direct educational work with students. While some stakeholders who spoke with the OECD review team reported that the new rulebook had not yet been implemented, its methodology has potential to motivate teachers to develop their competences and demonstrate high performance. It can also help reduce the bias of promotion decisions within schools until external appraisals for promotion becomes feasible.

There is insufficient guidance on what students are expected to achieve

Central Bosnia Canton does not have standards in place that define the knowledge and competences that students should have achieved by the time they complete key stages in their schooling. Moreover, stakeholders who spoke with the OECD review team expressed concerns about grade inflation, which is common in other parts of BiH, undermines the rigour of certifications and diminishes the fairness of selection into higher levels of education. This problem is exacerbated by the fact that CBC does not have any external standardised assessments or examinations to help benchmark classroom grades. Moreover, the lack of clear assessment criteria and learning standards leaves teachers without support to guide the educational process and make reliable judgements about the strengths and weaknesses of individual students. This is a particular challenge for teachers who work with students that have learning difficulties.

Policies are in place to promote collaboration and professional learning in schools

Continuing professional development is an established practice for teachers in the CBC. As the canton does not have a pedagogical institute, teacher and professional councils oversee the implementation of teacher trainings. CBC also stands out as the only canton in FBiH to provide compulsory training hours to teachers during school time (one hour in every 40-hour working week), through activities such as observing

classes, organising workshops, and providing support to colleagues. Moreover, expert teacher groups is mandatory in all schools, further demonstrating the canton's commitment to peer learning. However, there appear to be fewer training and peer-learning opportunities available for school principals in CBC.

Since the canton lacks external supports for schools and teachers (such as expert advisors, which other BiH jurisdictions typically access through their pedagogical institutes), it is positive that policies are in place to foster improvement within schools. For example, the canton has legislation promoting school self-evaluation to help schools identify and address their weaknesses, as well as inform their annual development plans. However, school self-evaluation is not mandatory and there are no documents that set out consistent standards of school quality or describe the self-evaluation process in more detail (BiH, 2021[2]). Internationally, quality standards are an integral feature of frameworks for school external and self-evaluations. Without guidance and resources, such as a school self-evaluation manual, it will be difficult for school principals and leadership staff to improve teaching practices and learning outcomes.

Resource constraints and limited data hinder system-planning efforts

Central Bosnia Canton previously participated in a pilot for a country-wide education management information system (EMIS) and successfully implemented an electronic EMIS in all primary and secondary schools for six years. The canton suspended the system at the end of the 2018/19 school year, as the previous contract for the software expired (BiH, 2021[2]). However, at the time of drafting this profile, the canton had adopted a new rulebook on integrating information systems, and had launched a new EMIS at the end of 2021. Re-establishing the EMIS is positive since teachers reported that this tool was very useful for planning lessons, grading and other activities. However, the cantonal government will need to ensure that this tool generates timely information about the education system if it is to support the government's ability to inform system planning and evaluation efforts. Notably, the canton does not have a dedicated education strategy to help focus stakeholders around achieving long-term education goals. These challenges reflect the human and financial resource constraints that impede reform efforts in the canton's education sector.

Policy recommendations

This review provides recommendations that are relevant for Central Bosnia Canton as for other competent education authorities in BiH. However, the following points may be particularly salient for this canton:

Reinstate the EMIS system as soon as possible and use it to support school improvement and system-planning efforts

Central Bosnia Canton should reinstate its electronic EMIS to collect timely information about the education system. This data can help inform system-planning efforts and support policymakers in making effective use of the canton's limited education resources. For example, a functioning EMIS would allow the canton to report on the performance of its education system, helping to strengthen public trust and demonstrate a commitment to policymaking based on evidence. Eventually, the EMIS could inform the development of a dedicated CBC education strategy that sets out clear goals for stakeholders to work towards. The education strategy should guide the development of the canton's EMIS, by identifying indicators that the ministry would like to track at the canton level and linking these to broader BiH and international education goals (e.g. such as having a reliably comparable measure of student learning). As schools in CBC receive limited external support (i.e. there is no external school evaluation process or a pedagogical institute), providing schools with modern information tools to help manage their work and measure progress is critical to facilitating school self-evaluation and improvement efforts.

Explore the potential of external standardised testing

As Central Bosnia Canton continues to build up its institutional architecture for education policy, it should advocate for access to external standardised examinations. Currently, no such instruments exist in the canton, meaning that students have no objective measure to demonstrate the knowledge, skills and competences that they have acquired, including by the time they complete compulsory schooling. As a starting point, CBC should consider participating in any processes to develop an optional BiH Matura and help to engage universities and important local employers in this process (see Chapter 2). This would ensure that a range of stakeholders view the new exam as a reliable and sufficient certification tool. At the same time, the canton should begin to build up its technical capacity to implement and use standardised assessments more generally – potentially paving the way for a canton-level or multi-canton external standardised assessment for system monitoring purposes in the future. In this respect, it could take guidance from other neighbouring countries, such as Slovenia, potentially in the context of an EU initiative, or from other BiH cantons, such as Sarajevo Canton, that have experimented with system monitoring assessments.

The Central Bosnia Canton should consider opening its own pedagogical institute

The CBC is one of two jurisdictions in BiH to not have its own pedagogical institute, and the only one with a population above 100 thousand to not have one. Most cantons of FBiH have their own pedagogical institute or share one with another canton (e.g. West Herzegovina and Canton 10). Given the relatively large population of CBC, it is unlikely that the four ministry officials who are currently responsible for tasks typically done by pedagogical institutes have the capacity to fully support all of the canton's schools, teachers and students. The canton should consider establishing its own pedagogical institute or partnering with a nearby canton to share the costs associated with operating this body. The additional capacity a pedagogical institute would provide, and granting this body some independence vis-à-vis the CBC ministry would allow the canton to better perform its duty to provide education. For example, the pedagogical institute could take the lead on establishing standards for student learning and school quality and develop tools to support schools and teachers in integrating these in their work. One the other hand, the ministry could focus on develop a high-level strategy and education goals for the canton.

Provide school principals with professional learning opportunities and support

Although the CBC already implements compulsory training for teachers at various levels and has an established culture of peer-learning within schools, current practices could be enriched by providing school leaders with training, support and peer-learning opportunities to help build their instructional leadership capacity. This policy would align with a recommendation of the BiH Council of Ministers in its 2020 Roadmap for Inclusive Education, which called for all principals to receive collaborative learning and mentorship opportunities (Council of Ministers of Bosnia and Herzegovina, 2020[10]). Importantly, this training should go beyond administrative tasks, such as staffing decisions and cover other areas, such as monitoring activities based on school quality indicators and conducting school self-evaluation.

As a first step, CBC could create networks for school leaders that are oriented towards sharing school improvement challenges and strategies, or develop mentorship programmes that pair new principals with their experienced colleagues for coaching and feedback. This would be similar to initiatives in other European countries such as Slovenia and Estonia (Pont, Nusche and Moorman, 2008[11]). In the longer term, the canton should consider developing regular principal appraisal procedures through which expert advisors can assess school leaders' performance against standards for their role. While these actions can help strengthen school leadership, the ministry should also develop guidance and reference materials for principals to use in their work, as well as provide the data and funding that will allow them to implement school improvement plans.

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8 Republika Srpska

Context and features

Republika Srpska (RS) is a centralised self-government entity within Bosnia and Herzegovina that contains 64 local self-government units (i.e. municipalities). With a surface area that makes up nearly half of BiH (Table 8.1), the entity's socio-economic development is primarily driven by industry, agriculture and services, which respectively employ 28%, 24% and 48.5% of the entity's population (Republika Srpska Institute of Statistics, 2021[1]). In RS, one out of two employed individuals has completed secondary education, and one out of four has completed higher education (ibid). According to the Bosnia and Herzegovina's Foreign Investment Promotion Agency, Republika Srpska's main strengths for attracting investments rely on its natural resources, favourable tax regulations and an increasingly qualified workforce (Emerging Europe, 2020[2]). The entity's Ministry of Education and Culture is responsible for pre-university education policy and has a staff of around 80 people (BiH, 2021[3]). This profile examines the context and features of the evaluation and assessment system for education in RS and highlights policy recommendations that can help strengthen this system to improve teaching and learning.

As in most administrative units of BiH, RS has a Pedagogical Institute, formally known as the Republican Pedagogical Institute of Republika Srpska, which operates as an independent body associated with the Ministry of Education and Culture. The RS Pedagogical Institute has responsibilities for a wide range of tasks that involve, among other things, providing pedagogical support to teachers and monitoring education institutions from the pre-school to secondary level ((Republika Srpska, 2018[4])). Among other things, the RS Pedagogical Institute develops the entity's curriculum, assesses student achievement with external tests, and provides professional development for teachers. There are slightly more than 30 staff who work in the RS Pedagogical Institute. The Ministry of Education and Culture and RS Pedagogical Institute are responsible for supporting the largest share of students, teachers and schools compared to other competent education authorities in BiH. For this reason, having adequate resources is important for the RS government to provide education and support for teaching and learning across the entity.

Primary education (ISCED 1 and 2 in BiH) is mainly funded by the entity's budget through the Ministry of Education and Culture, with around 90% used to cover gross staff salaries (BiH, 2021[3]). At this education level, local authorities often complement entity-level funding with municipal funds to pay for school infrastructure and maintenance. At the secondary education level, schools receive funding for salaries and other employee-related fees from the budget of Republika Srpska. Both the entity budget and municipal authorities provide funds for other purposes (BiH, 2021[3]). In primary education, funding is allocated based on the number of classes within a school, while at other levels it is based on the number of students and classes, meaning that schools with higher enrolment rates receive more resources. This approach risks leading to inequalities between urban and rural schools. As the level of school resources can vary considerably across municipalities within RS, depending on location and local revenue streams, investments in school facilities are increasingly coming from donors (e.g. international organisations), businesses and private individuals (BiH, 2021[3]).

The RS education sector has an 8-year *Strategy of Pre-School, Primary and Secondary Education Development* (2022-2030). This document sets the main goals for different education levels and highlights

the need to harmonise the school network in response to the demographic changes. Moreover, the ministry adopted an action plan in 2019 that was associated with its previous education strategy and defined measures, activities, stakeholders and deadlines for the implementation of reform processes within pre-school, primary and secondary education. While implementation has been slowed by the COVID-19 pandemic and its consequences, the action plan focuses on i) increasing early childhood education coverage; ii) updating the early childhood education programme and adopting new curricula for primary and secondary school students; iii) updating textbooks in accordance with new curricula; iv) changing the approach to education for more operational and functional knowledge for students; v) providing professional development programmes for teachers; and vi) strengthening links between education and the labour market (BiH, 2021[3]).

Similar to other administrative units in BiH, schools in RS are governed by a school board, with a principal managing the work of schools. Key management decisions such as hiring a new teacher is under the school principals' responsibility: together with the school panel, they appoint teachers according to guidance set out by RS education law and a rulebook on the teacher recruitment process. When it comes to staff professional development, schools can plan the professional development of teachers within their annual work programmes but these plans need to be approved by the RS Pedagogical Institute. In terms of pedagogical autonomy, schools in RS have very little independence. For example, schools are only allowed to shorten instruction time in exceptional cases (BiH, 2021[3]).

The COVID-19 pandemic has disrupted school attendance all around the world. In RS, face-to-face classes were suspended in March 2020 and were quickly replaced by virtual instruction. The ministry established that distance learning was to be carried out using a combination of tools and platforms, including the Radio Television of Republika Srpska; phones; Office 365 accounts; private email addresses; as well as social networks and messaging services (BiH, 2021[3]). The transition to virtual teaching and learning was not easy as many students in RS did not have access to either the internet or electronic devices and some teachers were unfamiliar with digital platforms and had a hard time adapting their practices to a virtual learning environment. To address these challenges, the ministry introduced a platform – eNastava (eTeaching) – in 2020, which helps students and teachers to benefit from e-learning (BiH, 2021[3]). The ministry also issued instructions and laws on how schools should adapt their activities, including when it comes to student assessment (ibid). Remote education lasted until the end of classes in the second semester of the 2019/20 school year. The impact of the pandemic's disruptions on student learning outcomes in RS, as well as other parts of BiH, remains unknown.

Table 8.1. Key facts: Republika Srpska and its education system

Economic Indicators
Based on most recent available data

	RS	BiH share	BiH average
Surface area	24 641 km2	48%	..
Population	1 228 423	35%	..
GDP (PPP) per capita	..	..	USD 14 509

Schooling indicators

	Pre-primary	Primary (ISCED 1-2 or age 6-14)	Secondary (ISCED 3 or age 15-18)	
			General	Specialised
No. of children or students	12 188	85 059	35 628	..
No. of schools	120	645	99	..
No. of teachers	1203	8 491	3 847	..

Note: Population figures are a 2020 estimate by BHAS based on the 2013 BiH population census. GDP (PPP) per capita figures are for 2020. BiH average GDP (PPP) per capita is in constant 2017 international $. Figures for schooling indicators are from 2021 and were provided by the Ministry of Education and Culture of Republika Srpska. Specialised secondary programmes are vocational, technical or arts and religious programmes. In this table, "schools" and "teachers" refers to institutes and education professionals at the pre-school, primary and secondary level.
Source: (BHAS, 2021[5]), *Bosnia and Herzegovina in Figures 2020*, https://bhas.gov.ba/data/Publikacije/Bilteni/2021/NUM_00_2020_TB_1_EN.pdf (accessed on 17 January 2022); (World Bank, 2022[6]), *World Bank Open Data*, https://data.worldbank.org/ (accessed on 17 January 2022).

Strengths and challenges

Republika Srpska has been taking important steps to enhance the quality of its education system in recent years. This includes, for example, developing a competence-based curriculum based on learning outcomes under the entity's 2019 education action plan for reform. RS has also put in place its own education management information system, EDUIS, which allows education stakeholders to have updated information on students, teachers and schools, all centralised in one platform to support system monitoring efforts. RS collects information on student performance through its Grade 5 external assessment and since 2018, RS has started to pilot a "little matura" examination for Grade 9 students, which will become mandatory in 2022/23. In an effort to improve the quality of education, the RS Pedagogical Institute recently established a system for school evaluation and has just finalised their own set of professional teacher standards. These processes will allow schools and teachers to assess their performance and identify areas for improvement. However, RS still lacks regulation on the career path of teachers and could better harmonise the tools it has available for system monitoring purposes. RS has a lot of experience and processes in place that could be shared with other parts of BiH. The entity's limited collaboration in country-wide initiatives however, prevents its good practices from being known and potentially adopted more broadly.

The entity is working to re-define student learning outcomes

RS is working to establish a new set of expected learning outcomes by subject and grade level. These standards align with the changes being made to Republika Srpska's curricula, which focuses on a competence-based approach to education (a trend that reflects curricula changes internationally and in the BiH state-level Common Core Curriculum Based on Learning Outcomes). Namely, the new curricula

aims to reinforce the higher-level and critical thinking skills that students need for success in a modern and interconnected world. While teachers in RS still define their own criteria for student assessment at the school level according to relevant laws and rulebooks, the new learning standards can help them determine student's strengths and areas for improvement. This will be an important step towards helping reduce grade inflation and ensure more consistency in grading across the entity. Teachers and schools, however, will need training and guidance to interpret these new learning standards and apply them in their own classroom assessment practices. RS has many elements of an effective student assessment system, but fully implementing the entity's goals for an education system based on learning outcomes will require new or revised tools, processes and approaches to measuring what students know and can do.

Although progress has been made, RS still lacks systematic appraisal processes that support teacher improvement and motivate their professional development

RS recently finalised its own teacher standards, which can support teacher appraisal. Having a standards-based appraisal system for teachers can help them to identify their strengths and areas for improvement, and when aligned with professional development, strengthen their professional competences. The standards can also help teachers orient their practice towards more student-centred teaching approaches, in line with the entity's recent changes to the curriculum and its focus on defining knowledge, skills and individual competences of students. Despite the potential of Republika Srpska's new teacher standards, the entity does not have a systematic, regular appraisal system where teachers receive feedback on their practice. Moreover, the teacher career structure in RS, which includes different levels based on mentor, advisor and senior advisor, is not accompanied by legislation that regulates career progression. This means that procedures for promoting and rewarding teachers are not linked to performance but to other criteria, such as years of teaching experience. This can result in a lack of motivation for teachers to improve their performance, acquire new competences, and take on new tasks, factors that can have a direct impact in the quality of teaching and learning. These concerns are exacerbated by the fact that the entity lacks clear procedures for undertaking mandatory continuous professional development, that is, there is currently no rulebook defining what the requirements for teachers' professional development are. Teacher trainings are available through the RS Pedagogical Institute but these opportunities are limited (e.g. due to resource constraints) and are not always designed to respond to the specific needs of practicing teachers.

The entity has many components of system evaluation in place but gaps in the framework and use of data remain

RS is one of the few administrative units to have a standalone education strategy, an external assessment system and regular reports on school quality. On the latter, RS introduced a system for evaluating school quality in 2017/18. This system is based on school quality standards for primary and secondary education and includes external evaluations carried out by the Pedagogical Institute, as well as school self-evaluations. These are positive features of school evaluation systems commonly found in OECD and European Union members (OECD, 2013[7]). RS also has an education management system, EDUIS, which is allowing the government to have real time, disaggregated data on school financing, human resources and learning outcomes. Despite these positive developments, the entity still has some capacity gaps in its system evaluation framework. The tools available to monitor performance in the entity could also be better harmonised to work together. For example, while results from standardised assessments are available on the RS Pedagogical Institute's website, data could be more easily accessible in the EDUIS platform to allow actors to conduct their own analysis for system monitoring purposes.

Policy recommendations

This review provides recommendations that are relevant for Republika Srpska as for other competent education authorities in BiH. However, the following points may be particularly salient for this entity:

Support the competence-based curricula with more student-centred teaching and assessment practices

The Republika Srpska's new curriculum based on learning outcomes represents a shift away from a system of instruction focused on memorisation and reproducing knowledge to one focused on supporting students to apply higher-order and critical thinking skills. Achieving this change will require more student-centred pedagogical approaches, providing an opportune moment to strengthen the link between assessment, teaching and learning. Teachers in RS, as well as in other parts of BiH, report that student assessment receives little attention during initial teacher education (ITE) and professional development programmes. While it is positive that Republika Srpska's recently defined school quality standards require schools to conduct formative assessments of students, teachers do not receive any tools or support in using formative assessment in their classroom assessment practice. The RS Ministry of Education and Culture, together with the Pedagogical Institute, could provide teachers with training and support to develop their assessment literacy. Initiatives in this area can range from improving the coverage of student assessment topics in ITE programmes to creating space for school-based discussions on assessment practices.

Leverage external standardised assessments administered by Republika Srpska's Pedagogical Institute

RS is one of the few administrative units in BiH that has its own external assessments in place. Currently, the entity administers the following standardised tests to students:

- End of Grade 5: to determine achievement of learning outcomes and support teachers in delivering the curricula. This assessment has no stakes for individual students, teachers or schools;
- End of Grade 9: a pilot exam that will serve as a tool to determine students' entrance into different upper secondary education pathways. This examination will therefore have high-stakes for students, as it will play a role in determining their future study options.

The extent to which the Grade 9 pilot 'little matura' fulfil their respective purposes depends upon the strength of test characteristics, which are themselves affected by several decisions related to the test's design and procedures (see Table 8.2). With the introduction of a curriculum based on learning outcomes, RS should take the opportunity to review both the Grade 9 pilot 'little matura' as well as the Grade 5 external assessment, to ensure their design and results help encourage a positive "backwash effect" on classroom assessment practices.

While the review team did not have documentation on the content of either external test in RS, teachers in the entity are expected to use a range of tasks to determine student performance on school-based final exams, including oral responses, portfolios and essays (RS, 2019[8]; BiH, 2021[3]). These types of assessment tasks can help improve the validity of assessments by better capturing higher-order competences, compared to simple multiple-choice or single answer questions (Ku, 2009[9]). However, there are trade-offs associated with marking more complex, open-ended test items, as these may require subjective judgements, which in turn can present risks to the testing instrument's reliability. RS will need to balance the validity and reliability of its external assessment instruments. Moving towards computer-based test administration and marking, as well as introducing moderation processes (e.g. ensuring that all students take the exam under the same conditions or that marking is consistent) could help in this effort.

Table 8.2. Purposes, important characteristics and components of external examinations

	Purpose	Important test characteristics	Design and procedural components
Primary purpose(s)	Certify and select students	Integrity Reliability Validity (construct and content) Test subjects Item types Testing mode Testing conditions	Test subjects Item types Testing mode Testing conditions Marking Management and leadership
Secondary purpose(s)	Exert positive backwash effects		

Source: Adapted from (OECD, 2020[10]), "*Strengthening national examinations in Kazakhstan to achieve national goals*", https://doi.org/10.1787/0bf8662b-en.

Introduce a regular teacher appraisal process for formative purposes and inform professional development opportunities

Once the RS teacher standards are effectively in place, the Pedagogical Institute could work on establishing a regular, standards-based appraisal process for its teachers. This practice should take place within schools and be conducted by the school leadership team or experienced teachers. The policy would support the entity into moving from a historically summative nature of teacher appraisal to a more formative process that helps teachers identify their strengths and work on improving their practices. Many OECD countries require that regular teacher appraisals take place annually to help ensure that teachers receive regular feedback, as well as opportunities and support to improve their practice (OECD, 2013[7]). The results from these regular teacher appraisals can also be used by the ministry and the Pedagogical Institute to identify teachers' main learning needs and knowledge gaps in order to develop relevant professional development opportunities.

Enhance the compilation of data and strengthen reporting on education performance

Similar to OECD and EU members, RS has already developed and integrated unique identification numbers into its EDUIS system. Such a process increases the analytical functions of the education data gathered by the government and provides evidence to support progress against the education goals set in Republika Srpska's education strategy and action plan. One way RS could continue to strengthen the monitoring of its education system is to continue developing systematic reporting on the state of education in the entity. For example, while the RS Ministry of Education reports quarterly to the government about progress towards education reform goals, publishing an annual or bi-annual report can inform a wider range of stakeholders about the state of the education system, promoting greater transparency and trust. This report could be similar to what is recommended at the state level (see Chapter 5) but with more detail on the specific goals and context of RS. This report should not only contain administrative data on students and schools – which is already available under other publications produced by Republika Srpska's Statistical Institute – but include performance data and qualitative analysis that serve as evidence about the quality of the education system. The RS should also ensure its data definitions align with those of BiH and international data standards, which would also allow the entity to benchmark itself against other education systems within BiH and abroad. This type of regular reporting can help RS build momentum and increase public confidence and engagement with ongoing and planned reforms. This is especially important to follow progress towards implementing the entity's 2019 action plan, as analysis on the sector's main challenges and needs will be available.

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9 Sarajevo Canton

Context and features

Sarajevo Canton contains the capital of Bosnia and Herzegovina (BiH), Sarajevo City, and has the highest population density and strongest economy of all jurisdictions in the country (Table 9.1). Together, the city and canton of Sarajevo generated nearly 33% of the total GDP of the Federation of Bosnia and Herzegovina (FBiH) in 2017 (Sarajevo Canton, 2019[1]). Sarajevo Canton has important tourism, food processing, manufacturing and information technology sectors, and hosts a number of large international companies. Until recently, Sarajevo Canton had a single ministry with responsibilities for education policy. In spring 2021, however, these responsibilities were split between the new Ministry of Education and Upbringing, which governs pre-school, school and adult education and a separate Ministry for Higher Education, Science and Youth, which is responsible for higher education, as well as science and youth policy areas (MoES, n.d.[2]; MoE, n.d.[3]). This profile examines the context and features of Sarajevo Canton's evaluation and assessment system for education and highlights policy recommendations that can help strengthen this system to improve teaching and learning.

Sarajevo Canton previously had a pedagogical institute that was closed during the re-organisation of the ministry. The 16 professional staff who worked in the pedagogical institute (employees who mainly had degrees and experience in teaching), were transferred to work in a unit within the new Ministry of Education and Upbringing and are now considered ministry staff. This unit has responsibilities equivalent to that of a pedagogical institute, namely to monitor and provide support to the canton's teachers and schools. However, canton officials report that school monitoring activities have not been conducted and implementation of the ministry's other work has been slowed since the organisational changes were made. Positively, the Sarajevo Cantonal Assembly adopted plans to establish a new Institute for the Development of Pre-tertiary Education (Sarajevo Canton, 2019[4]), which will be responsible – among other things - for monitoring, assessing and improving pre-tertiary education, helping implement curricula reforms and providing expert support to teachers and schools.

Similar to other parts of FBiH, the cantonal budget and associated laws determine the financing of school education in Sarajevo Canton. Cantonal law states that a school principal is responsible for managing primary and secondary schools and a school board is responsible for governing them. In general, schools in Sarajevo Canton have some autonomy over management and governance decisions. For example, a school principal can request permission to hire a new teacher but this request must be approved by the ministry beforehand and any unassigned teachers in the canton have priority to fill the position before the principal can open the vacancy to the public (World Bank, 2021[5]). School principals also have responsibility for preparing school budgets, which must be approved by the school board and ministry; however, there are no guidelines on how to prepare these (ibid).

Sarajevo Canton is one of only two competent education authorities covered by this review that has a standalone strategy for the education sector (alongside Republika Srpska). This strategy covers the period of 2018-22 and aligns with the general Development Strategy of Sarajevo Canton (2021-27). The canton's main education goals include raising the quality of education, with a special emphasis on promoting science, technology, education and mathematics (STEM), lifelong learning and digital skills, as well as

aligning the education system more closely with labour market demands (Canton Sarajevo, 2020[6]). Positively, the canton's education strategy was developed in consultation with stakeholders and includes a set of clear targets, which can help organise resources and make policies more coherent. However, the limited use of evidence to underpin the education strategy (e.g. no data on learning outcomes) and the high turnover rates of ministers leaves the Sarajevo education system prone to political interference, making it difficult to establish and implement a sustainable reform agenda.

To help monitor and support the shift to online learning, during the COVID-19 pandemic, Sarajevo Canton established a working group, as well as teams to support the development of digital content for online learning at the primary and secondary level. These bodies included representatives of the ministry, representatives of parents' councils, teaching staff and school management. Schools in Sarajevo Canton were required to submit weekly reports on the implementation of online learning during the initial school closures caused by the COVID-19 pandemic.

Table 9.1. Key facts: Sarajevo Canton and its education system

Economic Indicators
Based on most recent available data

	Sarajevo Canton	BiH share	BiH average
Surface area	1 227 km²	2.4%	..
Population	413 593	11.7%	..
GDP (PPP) per capita	..	..	USD 14 509

Schooling indicators

	Pre-primary	Primary (ISCED 1-2 or age 6-14)	Secondary (ISCED 3 or age 15-18)	
			General	Specialised
No. of children or students	5 454	38 043	4 673	10 077
No. of schools	68	96	19	47
No. of teachers	396	2 989	1 605	

Notes: Population figures are a 2020 estimate by BHAS based on the 2013 BiH population census. GDP (PPP) per capita figures are for 2020. BiH average GDP (PPP) per capita is in constant 2017 international $. For pre-primary level, the number of students and teachers refers to the numbers of children and staff in pre-school institutions. Specialised secondary programmes are vocational, technical or arts and religious programmes: data refers to the number of programmes within independent and mixed schools.
Source: (BiH, 2021[7]), *Country Background Report for the OECD Review of Evaluation and Assessment in Education: Bosnia and Herzegovina*, Unpublished. (BHAS, 2021[8]), *Bosnia and Herzegovina in Figures 2020,* https://bhas.gov.ba/data/Publikacije/Bilteni/2021/NUM_00_2020_TB_1_EN.pdf (accessed on 17 January 2022); (World Bank, 2022[9]), *World Bank Open Data*, https://data.worldbank.org/ (accessed on 17 January 2022). https://www.popis.gov.ba/popis2013/mapa/?lang=eng (for population)

Strengths and challenges

Sarajevo Canton has some important elements of an evaluation and assessment framework, such as a functioning education management information system (EMIS) and an external examination of student learning (in Grade 9). While the canton has started developing new learning outcomes for students, in line with its competence-based curricula reforms, teacher policies are not designed to promote the student-centred approaches that underpin competence-based approaches to education. Similar to other parts of BiH, the implementation challenges facing Sarajevo Canton are exacerbated by capacity and resource challenges that prevent the government from systematically monitoring and supporting the quality of teaching and learning in schools.

Sarajevo Canton is one of the most experienced education authorities in BiH when it comes to using external, standardised assessments of student learning

Among other jurisdictions in BiH, Sarajevo Canton is one of the most experienced in using external standardised assessments of student learning. Canton authorities piloted a low-stakes standardised assessment in 2018 to support system monitoring but this never materialised into a regular assessment, partly because of student absenteeism and lack of reliable marking procedures (BiH, 2021[7]). Despite this, the canton has a well-established external examination at the end of basic schooling (known as the Grade 9 matura) that assesses students in Bosnian, Croatian or Serbian language and literature, mathematics and the students' first foreign language. While the canton did not administer the matura in 2020 because of the COVID-19 pandemic, results are typically used as one of the criteria (alongside grade point average) for selecting students into either vocational or general secondary schools.

As the Grade 9 matura has high stakes for students, it influences what students learn and what teachers teach. This can create a "backwash effect" that can be either positive (e.g. by reinforcing curricula and learning outcomes) or negative (e.g. teaching to the test) (OECD, 2013[10]). While there are positive features of Sarajevo Canton's Grade 9 matura, such as involving subject teachers in developing items, the test instrument consists mainly of multiple-choice questions with some short-answer items and does not include the types of open-ended tasks that can better capture higher-order competences. Moreover, the use of an external exam to sort students into secondary programmes has become less common internationally as policymakers seek to remove barriers to progression and reduce early tracking (Maghnouj, S. et al., 2020[11]). The canton's lack of external examinations at the end of upper secondary (ISCED 3 or secondary education in BiH) is another notable difference between the way BiH education systems use examinations compared to international peers.

Several good practices that support system-level planning exist but schools lack capacity and support to improve instruction

Sarajevo Canton benefits from its proximity in location to the headquarters of international development partners and universities based in the BiH capital who regularly convene and can conduct research and support other activities to help strengthen the education sector. This context helps explain how the canton has established several good practices that support system-level planning. For example, the canton has a distinct education strategy and the Assembly of Sarajevo Canton aims to discuss reports from the education ministry on a regular basis. Despite some reported limitations (e.g. the inability to collect data on Roma students), the canton has one of the most sophisticated EMIS in the country, which collects and stores school-level data, as well as results from the external examination. Importantly, the ministry reportedly makes adjustments to its EMIS indicator framework when additional information is required. Despite these positive features, Sarajevo Canton struggles to implement education reforms, in part because of resource limitations, high turnover in ministry leadership and more recently, organisational changes to the bodies responsible for education within the canton. For example, since closing its pedagogical institute in 2021, Sarajevo Canton has not been able to carry out school monitoring activities. As school self-evaluation is not mandatory in the canton, the lack of any external or self-monitoring activities presents a major risk to the quality of school education.

Teacher policies are not designed to raise the quality of teaching or motivate teachers to improve their practice

Similar to other BiH jurisdictions, Sarajevo Canton has established a career structure for teachers, as well as systems for recruitment and promotion. However, recruitment procedures prioritise teacher candidates who have been unemployed over those with more teaching experience and promotion decisions are not systematically based on performance (World Bank, 2019[12]). As a result, the canton's career structure

does not motivate teachers to develop their competences, take on new tasks, and demonstrate high performance which could help improve the quality of schooling. This was not always the case: Sarajevo canton previously used a set of country-level teacher standards that were developed through an EU-funded project and covered domains that research recognises as important for quality teaching, such as learning and teaching; monitoring and assessment; co-operating with family and community; and professional development (among others) (British Council, WYG and GIZ, 2017[13]).

These standards underpinned the canton's external teacher appraisal processes and helped teachers to identify their own strengths and areas for improvement. However, the canton discontinued this practice, partly because teacher unions determined the standards created too much of an administrative burden. Without clear professional standards and appraisal processes, Sarajevo Canton will likely struggle to align its policies related to recruitment, promotion and teacher education, with the incentives and support needed to encourage the student-centred approaches that teachers should use and competences they should help their students develop.

The establishment and use of learning standards is a challenge

Sarajevo Canton started reforming its curriculum in 2016, with a goal to move beyond a narrow focus of recalling knowledge to an approach that is focused on developing competences. In line with the curriculum reform, the canton is developing subject curricula based on learning outcomes, which will help define the knowledge and competences that students should have achieved by the time they complete key stages in their schooling (BiH, 2021[7]). At present, however, teachers, students and schools do not have clear learning outcomes and assessment criteria to guide the educational process and review student performance. This context contributes to important challenges, such as grade inflation and an implementation gap between the goals of the canton's competence-based curricula and what is taught and learnt in classrooms.

Policy recommendations

This review provides recommendations that are relevant for Sarajevo Canton as for other competent education authorities in BiH. However, the following points may be particularly salient for this authority:

Share the canton's experience with standardised assessments while ensuring the reliability and validity of the Grade 9 matura

This review recommends that Sarajevo Canton concentrate on sharing its experience with standardised testing by helping to introduce a high-quality external BiH Matura examination that would help improve the reliability and rigour of upper secondary certifications (ISCED 3 or secondary education in BiH) across the country (see Chapter 2). This initiative would also help signal the mastery of students' core competences to potential employers and help establish more merit-based and equitable selection into tertiary education. In parallel, however, authorities in Sarajevo Canton should take steps to improve the quality of its existing Grade 9 matura so that it can help make fair, trusted and transparent decisions about students' pathways after basic schooling. The extent to which current external examinations in BiH jurisdictions fulfil their purposes depends upon the strength of test characteristics, which are themselves affected by several decisions related to the test's design and procedures (see Table 9.2).

Table 9.2. Purposes, important characteristics and components of external examinations

	Purpose	Important test characteristics	Design and procedural components
Primary purpose(s)	Certify and select students	Integrity Reliability Validity (construct and content) Test subjects Item types Testing mode Testing conditions	Test subjects Item types Testing mode Testing conditions Marking Management and leadership
Secondary purpose(s)	Exert positive backwash effects		

Source: Adapted from (OECD, 2020[14]), *Strengthening national examinations in Kazakhstan to achieve national goals*, https://doi.org/10.1787/0bf8662b-en.

As Sarajevo Canton is undertaking major reforms to align its curricula with more competence-based approaches to education, the matura test instruments need to align with the new curricula and a clear set of learning outcomes. This will require clearly defining the competences that students should achieve by the time they complete key stages in their schooling and developing assessment criteria to guide the educational process. The canton's external Grade 9 matura also has a role to play in either helping to reinforce the competence-based curricula and desired assessment practices or hold back these efforts by encouraging teachers and students to narrowly focus on recalling the knowledge needed for success on more traditional types of examinations. Specifically, using a combination of multiple-choice items and open-ended items in the Grade 9 matura would help improve the validity of this exam. To ensure the Grade 9 matura and other external assessments are valid instruments that have positive backwash effects, canton authorities can take the following steps:

- **Develop high-quality item banks.** To develop valid exam instruments, canton authorities should develop item banks that reflect the goals and standards of the CCC that the Agency for Pre-school, Primary and Secondary Education (APOSO) has developed as well as criterion-based assessments. Item developers could draw on examples from PISA and other competence-based assessments to introduce more applied item types into local standardised tests. For instead of asking mathematics questions to assess whether students can recall complex procedures to solve logarithms, questions might ask students to formulate, use and interpret mathematical concepts to solve problems in real life contexts (OECD, 2019[15]). Teachers should be involved in writing these items, which can increase their familiarity with assessing higher-order competences.
- **Recruit and train technical staff to manage standardised tests.** To support local examinations and assessments, the units responsible for developing and managing the Grade 9 matura should recruit and train the technical staff needed to undertake this task. In particular, they will need individuals with expertise and experience in psychometrics and statistics, who will be able to develop and ensure the quality of competency-based items, as well as analyse results at a more granular level to inform instruction. This could, for instance, be done through co-operation with the University of Sarajevo or as one of the mandates for the canton's new Institute for Development of Pre-tertiary Education.

Given that students in Grade 9 are still young (generally around 14-15 years old), and have 3-4 years of schooling left (depending on their secondary track), it is right to prioritise the validity of the external examinations at this level. However, there are trade-offs associated with the marking of more complex, open-ended test items, as these may require subjective judgements, which in turn makes reliability harder to ensure. Students in Sarajevo Canton take the Grade 9 matura in their schools and results are marked by an external commission of teachers. At present, there are no external moderation procedures to ensure that all students take the exam under the same conditions or that marking is consistent. One way to address this challenge is to conduct random external visits during the administration of the exam to ensure

that all schools are following the Grade 9 matura rulebook. Another way is to have qualified staff from the Institute for Development of Pre-tertiary Education (once it is developed) perform spot checks on samples of student work to ensure that the marks granted by the commission of teachers do not deviate from marking guides. Authorities could also move towards computer-based test administration and marking, trends that have accelerated in response to the COVID-19 pandemic (OECD, 2020[16]). Introducing moderation processes would be an effective way for canton authorities to prioritise the validity of the Grade 9 matura while maintaining its reliability and integrity as a trusted instrument for allocating students into different secondary pathways.

In the medium to longer term, canton authorities should also consider investing their resources in implementing a standardised assessment at earlier levels of schooling instead of as a selection examination. Creating a low-stakes standardised test that does not have consequences for student's future pathways but primarily serves to support their learning could help to better consolidate the foundational numeracy and literacy skills of younger students in basic schooling while also providing a benchmark against local, regional, country-wide or international standards.

Re-introduce the use of professional standards to inform teacher appraisal processes

Sarajevo Canton should re-introduce the use of teacher standards and mandate the regular, standards-based appraisal of teachers' work for development purposes. This practice should take place within schools and be conducted by the school leadership team or experienced teachers (see Chapter 3). Many OECD countries require that regular teacher appraisals take place annually to help ensure that teachers receive regular feedback, as well as opportunities and support to improve their practice (OECD, 2013[10]). If these standards are to be considered more than a narrow administrative tool, but rather means to reinforce expectations for teachers' roles in line with the competence-based curriculum, it will be important that the standards align with the canton's other teacher policies, such as those related to recruitment, promotion and professional development. Participating in the development of a state-level online platform that collects and disseminates resources for using the standards in teachers' daily work and creating opportunities for job-embedded learning related to the standards are among some of the ways that Sarajevo Canton can ensure the standards serve as a meaningful and relevant reference for strengthening the quality of teaching and learning. Such a platform could be led by APOSO, in partnership with pedagogical institutes.

Strengthen the capacity of schools to drive their own improvement

Sarajevo Canton does not currently conduct external school evaluations, and self-evaluations are not mandatory. Moreover, principal appointments remain vulnerable to politicisation despite changes to selection procedures over the past decade. The canton's lack of professional standards for principals, as well as appraisal processes and training opportunities also means that principals are often unprepared to make well-informed judgements about how their school is performing in relation to broader system priorities and how to develop school improvement plans. Other jurisdictions in BiH, including Republika Srpska and West Herzegovina Canton, have developed – or are in the process of developing – professional standards and appraisal processes for school principals. This policy action can help strengthen the capacity of principals in Sarajevo Canton to drive improvements in their schools. Investing in school principals and providing schools with support is especially important since the canton does not currently have a separate pedagogical institute to provide expert advice to schools (although they are in the process of forming the Institute for Development of Pre-tertiary Education).

The Ministry of Education can help promote improvements to school performance by working with APOSO to define a core set of five to ten school quality indicators that principal and other actors can use to better understand a school's level of performance. These indicators can be tailored to Sarajevo Canton's specific context but indicators should address aspects of schooling that are most important to students' learning

and development, as well as student outcomes (e.g. outcomes related to student learning and progress, equity, etc.). Sarajevo Canton could also leverage its EMIS to provide summary reports on the state of education that describe what schools in the canton are doing well and what they can do to improve, which could inform school-led improvement efforts. In the longer term, the canton should re-introduce external school evaluations and associated supports to raise school performance.

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10 West Herzegovina Canton

Context and features

Prior to the early 1990s, the region presently known as West Herzegovina Canton was one of the poorest areas of Bosnia and Herzegovina (BiH), while today it is one of the richest. It has an important agricultural sector, and it has embarked upon an active investment promotion strategy, focusing on the processing industry, trade and civil engineering (HERAG, 2019[1]). West Herzegovina Canton has the sixth largest population among the cantons composing Federation of Bosnia and Herzegovina (FBiH) (Table 10.1); its primary and secondary school cohort is also the sixth largest. Correspondingly, the canton also comes sixth in terms of the size of its network of primary and secondary schools. The canton's Ministry of Education, Science, Culture and Sports governs education policy. The ministry has around 25 members of staff, five of which cover education. This profile examines the context and features of West Herzegovina Canton's evaluation and assessment system for education and highlights policy recommendations that can help strengthen this system to improve teaching and learning.

Since 2018, the canton has a pedagogical institute, the Institute of Education, which it shares with a neighbouring canton, Canton 10, which is similar in population size to West Herzegovina Canton, but covers a much larger area. Such efforts, through which the two cantons co-operate and pool resources, should generally be regarded as a positive initiative. The Institute of Education is responsible for a range of tasks, including curricula design, textbook selection, teachers' professional development and the development of guidelines for teachers. It has around five staff (three of which are administrative staff) and 15 external associates who are education experts.

Funding for pre-schools and capital expenditure for primary schools (basic education in BiH) comes from municipal or city budgets in West Herzegovina Canton, while the operating costs of primary and secondary schools (e.g. salaries, social contributions, utility costs) are covered through the cantonal budget. In addition, the ministry provides funds to cover the cost of pre-school attendance for children with disabilities, the cost of assistants for children with special needs, and the procurement of textbooks (which are free for all primary school students). The draft cantonal budget is developed for a three-year period according to established guidelines. Schools must submit their budget requests to the cantonal Ministry of Finance, which prepares a budget proposal for the entire canton. Most of the funds requested by schools concern salaries and employee benefits (for secondary schools, capital costs are also included). In certain cases, schools can also apply for exceptional funds outside the ordinary funding mechanism – for instance, for emergency procurement or building repairs. In these cases, the Finance Ministry must approve the request, which a Cantonal Government decision then grants.

The Cantonal Development Strategy of West Herzegovina (2021-27) includes education improvement as one of the canton's strategic goals. Specifically, it identifies three priorities: i) investment in educational infrastructure and modernisation of the education system; ii) strengthening the quality of inclusive education; and iii) aligning education and labour market needs. The canton is now in the process of developing a dedicated strategy for education, which will focus, among other topics, on: i) developing social science, humanities and other subject curricula that will be aligned with the Common Core Curriculum

Based on Learning Outcomes; and ii) digitising the education system, which includes creating an e-class register, an e-log, e-applications, and e-learning modules.

Schools in West Herzegovina Canton have limited de facto autonomy, as in other cantons. Cantonal law prescribes that primary and secondary schools are managed by a school principal and governed by a school board. However, the ministry maintains significant influence over key management and governance decisions. To hire a new teacher, for instance, a school board is required to obtain permission from the ministry to announce the vacancy, and must first accept any candidates suggested by the ministry, from a pool of unassigned workers in the canton (World Bank, 2021[2]). There are some exceptions to this process for posts that need to be filled urgently. Cantonal ordinances restrict schools' pedagogical autonomy through specifying in very detailed manner the content and cadence of instruction, and the canton's pedagogical institute retains a central role in overseeing implementation of curricula, the use of textbooks and other school and classroom practices. At the same time, West Herzegovina Canton is one of the few competent education authorities in BiH that does not have a collective agreement regulating the employment of teachers; although new agreements are currently being approved.

During the COVID-19 pandemic, the World Health Organization (WHC) adopted specific regulations and bylaws to facilitate schooling during the health crisis. Education authorities also issued guidelines to schools, allowing for more flexibility in the evaluation of students: for instance, numerical grading was made optional in lower grades of primary school (corresponding to ISCED 1), while real-time written assessments were suspended in upper grades of primary school and in secondary schools (corresponding to ISCED 2 and 3). The ministry also created working groups tasked with developing curricula and determining which teaching materials should be used in distance learning. In the context of school closures, West Herzegovina Canton also organised online trainings dedicated to the professional development of teachers, to address such issues as online learning (UNICEF, 2020[3]). Trainings were also held to improve staff information and communications technology skills in the pandemic context.

Table 10.1. Key facts: West Herzegovina Canton and its education system

Economic Indicators
Based on most recent available data

	WHC	BiH share	BiH average
Surface area	1 362.6 km2	2.7%	..
Population	93 529	2.7%	..
GDP (PPP) per capita	..	..	USD 14 509

Schooling indicators

	Pre-primary	Primary (ISCED 1-2 or age 6-14)	Secondary (ISCED 3 or age 15-18)	
			General	Specialised
No. of children or students	916	7 598	1 140	2 008
No. of schools	20	66	4	10
No. of teachers	101	713	331	

Notes: Population data is for 2018. GDP (PPP) per capita data is for 2020. Specialised secondary programmes are vocational, technical or arts and religious programmes. Data for the number of secondary schools refers to the number of programmes within independent and mixed schools.
Source: (BiH, 2021[4]), Country Background Report for the OECD Review of Evaluation and Assessment in Education: Bosnia and Herzegovina; (BHAS, 2021[5]), *Bosnia and Herzegovina in Figures 2020,* https://bhas.gov.ba/data/Publikacije/Bilteni/2021/NUM_00_2020_TB_1_EN.pdf (accessed on 28 January 2022); (World Bank, 2022[6]), *World Bank Open Data*, https://data.worldbank.org/ (accessed on 17 January 2022).

Strengths and challenges

West Herzegovina Canton has taken important steps to improve its evaluation and assessment framework over the past few years. Following adoption of the state level Common Core Curriculum Based on Learning Outcomes (CCC) in 2018, the canton has established a dedicated pedagogical institute, in partnership with the neighbouring canton, Canton 10, which has started to develop performance standards for teachers, pedagogues and principals. In addition, it is developing a dedicated education strategy for the first time, and it is upgrading its education management information system (EMIS), which will enable it to compile granular data on the performance of students, teachers and schools. However, implementing system-wide guidance and rewards to improve quality in education remains a challenge, as schools have limited autonomy and supports to drive their own development.

The canton has established standards for the teaching and learning process

Over the past few years, particularly since establishment of the Institute of Education, West Herzegovina Canton has begun to formulate standards for teachers, pedagogues and principals. A set of teacher standards were finalised in 2019, primarily to support teacher appraisals. In addition, school self-evaluation is mandatory for public primary and secondary schools, and must be carried out every three years to guide the school's three-year plan and annual work programmes. To complete the evaluation, schools can make use of an Inclusion Index Methodology, developed by the Ministry of Education in partnership with the Organization for Security and Co-operation in Europe, as well as Guidelines for assessing school inclusiveness, using feedback collected from students, parents and teachers. The former does not exclusively focus on the quality of education for children with special educational needs, but covers a variety of important dimensions of school quality, such as whether teachers strive to adapt the content and pace of instruction to the needs of individual students, and whether schools adopt annual development plans for increasing inclusivity.

There have been efforts to improve system-level planning

The canton is developing its tools for system-level planning. In addition to preparing its first sector-specific education strategy, which signals a political commitment to education improvement and may help to build policy focus towards achieving long-term education goals, the canton is also upgrading its EMIS, in partnership with the University of Mostar. This upgrade will introduce student Identifiers (IDs) and teacher IDs linked to a civil ID, as well as other functionalities. West Herzegovina Canton benefits from active collaboration with other Croat-majority cantons and the University of Mostar – through institutions such as the Institute of the Schooling System in Mostar and the Co-ordination of the Croat Cantonal Ministries of Education in the Federation of BiH, among other bodies and initiatives.

The canton has also articulated a clear political commitment to advancing inclusivity goals. This is not only one of three education priorities outlined in the West Herzegovina Cantonal Development Strategy 2021-27, but it is also a consideration in the ministry's budgeting. The ministry currently funds the cost of pre-school education for children with special needs, and it also funds the salaries and social contributions of teaching assistants for children with special needs.

Teachers, students and schools do not have sufficient guidance on the learning outcomes they are working towards

West Herzegovina Canton does not have standards in place that define the knowledge and competences that students should have achieved by the time they complete key stages in their schooling. The canton is developing new curricula that will establish expected learning outcomes. Once it has begun to implement these curricula, the canton also plans to review its Ordinance on the Manner of Progress Tracking and

Assessing Students in Primary and Secondary Schools, in order to set out evaluation criteria based on learning outcomes and methods for formative assessment. As things currently stand, however, teachers, students and schools do not have learning standards to guide the educational process and review student performance.

Implementation of performance-based rewards is hindered by resource constraints

West Herzegovina Canton has developed a number of rules and tools for evaluation and assessment, but many have not yet been implemented. For example, cantonal legislation prescribes the use of regular performance appraisal and appraisal for promotion of teachers, but the canton has not yet established guidance on how to conduct these procedures. In addition, the canton reports that it would require a collective agreement to establish performance-related promotions and salary increases, or to define rules for these through another regulation. While it is positive that the canton has defined teacher standards, it is unlikely that these standards will be impactful without guidance on their use and a clear link to the teacher career structure. The absence of regulation governing the rights of, and expectations for, the teaching profession may also hamper the adoption of teacher standards, particularly given the governance culture in the West Herzegovina Canton, where school autonomy is limited. According to cantonal legislation, the successful adoption of teacher standards is a pre-condition to drafting a new rulebook on teachers' career development.

Schools have limited advice and support to improve performance

Finally, external evaluations of schools are not required by law in West Herzegovina Canton and are not conducted – partially due to the limited capacity of the pedagogical institute, as things stand currently. While schools do receive feedback following a general school supervision, they are not required to use this feedback to make pedagogical or operational adjustments, nor do they receive support to do so. As a result, the use of feedback to improve school performance is highly dependent on the school's leadership capacity and available resources. Other instruments that could generate information on how specific sets of students and schools are performing, such as external assessments of learning, are not present in the canton – though results from school-level assessments are available through the ministry's EMIS.

Policy recommendations

This review provides recommendations that are relevant for West Herzegovina as for other competent education authorities in BiH. However, the following points may be particularly salient for this authority:

Begin to report regularly on system performance using EMIS data

West Herzegovina Canton's efforts to upgrade its EMIS will provide improved data on how different parts of the education system are performing. This could be an important resource for developing and monitoring the implementation of the canton's new education strategy, and it could also provide important information to help the Institute of Education develop and implement new quality standards and guidelines for the education sector. In order to make full use of this data, however, the ministry should identify the different indicators that they would like to track, linked to both the education strategy as well as BiH-level goals, once defined. For instance, West Herzegovina Canton could construct indicators to help it monitor performance against inclusivity goals, for which it apportions special funds and which is identified as a priority in its Cantonal Development Strategy. This report, which the ministry could publish as an annual bulletin, should be openly accessible to the public, in order to strengthen public trust, and to demonstrate a commitment to policymaking based on evidence.

Explore the design and use of external standardised examinations

As West Herzegovina Canton continues to build up its institutional architecture for education policy, it should explore the development of external standardised examinations as a priority. Currently, no such instruments exist in the canton, meaning that students have no objective measure to demonstrate the knowledge, skills and competences that they have acquired, including by the time they complete compulsory schooling. As a starting point, West Herzegovina Canton should consider participating actively in any processes to develop an optional BiH Matura (Chapter 2). The ministry should help to engage the University of Mostar and important local employers in this process, in order to ensure these stakeholders view the new exam as a reliable and sufficient certification tool. At the same time, the canton should begin to build up its technical capacity to implement and use standardised assessments – potentially paving the way for a canton-level or multi-canton external standardised assessment for system monitoring purposes in the future. In this respect, it could take guidance from other neighbouring countries, such as Slovenia, potentially in the context of an EU initiative, or from other BiH cantons that have experimented with system monitoring assessments, such as Sarajevo Canton.

Identify desirable school quality indicators and map existing available data

West Herzegovina Canton does not conduct external school evaluations, and self-evaluation is only mandated once every three years. At the same time, schools have limited autonomy to drive their own development, and they are not required to make pedagogical, personnel, or operational adjustment following a general school inspection. Since 2018, the canton has a pedagogical institute to provide expert advice and support to schools in order to improve their performance. This Institute will have a large remit, since it is shared with Canton 10. In order to help the new Institute and the ministry monitor and improve school quality, the canton should identify desirable school quality indicators, which could remain local or later be picked up by other authorities as part of state-level core framework (Chapter 4). Once it has defined these indicators, the canton should map existing data, to limit any duplications in school reporting. A variety of data may be already available through the ministry's new EMIS, and this information could be shared with other cantons, as they begin to upgrade their own EMIS.

Provide more autonomy to schools over the hiring and promotion of teachers, and implement new appraisal procedures based on teacher standards

In OECD countries, school leaders are often the best judges of their school's particular hiring needs, and autonomy over key management decisions, such as the hiring and promotion of school staff, can help to build self-efficacy among school leaders. This autonomy can also help to encourage high performance among teachers by providing opportunities for career progression through contributions to improving school quality (OECD, n.d.[7]). The ministry should consider abandoning the requirement that schools must first accept new hires suggested by the ministry – a requirement that may prevent schools from hiring the most suitable candidates. In addition, West Herzegovina Canton should continue to work towards the adoption of performance standards for the teaching profession, as well as to implement appraisal procedures based on these standards. The canton could consider supporting a sample of schools to implement these standards and procedures at first, for instance, in the canton's primary schools, and/or in specific subjects linked to the CCC. It could also provide opportunities for the canton's teachers to exchange lessons on how they have improved their practice with other cantons, such as Canton 10. Over time, the canton should begin to introduce new appraisal for promotion procedures based on the new teacher standards, and these procedures should recognise teachers that have led key improvement areas in their school.

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OECD Reviews of Evaluation and Assessment in Education

BOSNIA AND HERZEGOVINA

Bosnia and Herzegovina (BiH) has high levels of educational attainment and performs similar to other Western Balkan economies in international assessments of student learning, like the Programme for International Student Assessment (PISA). However, large shares of students in BiH continue to leave school without mastering basic competencies and there are signs of inequities in the learning outcomes. BiH also has limited comparable data on teaching and learning and faces considerable capacity and resource constraints. Considering collaboration across the country's different levels of government is limited, these factors prevent the development and implementation of sustainable education reforms. This review explores some of the contextual features of education systems in BiH and highlights how a stronger evaluation and assessment frameworks can help achieve higher learning standards for all students.

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