1 The Bulgarian education system

Over the past three decades, Bulgaria has carried out important structural reforms that have helped the country reach higher levels of socio-economic development. However, overall productivity gains have not fully translated into sustainable and inclusive growth: Bulgaria continues to face high levels of poverty and there are large educational disparities according to geographical location and socio-economic background. This chapter provides an introduction on how evaluation and assessment in Bulgaria's education system can support more effective teaching and learning, thereby directing the sector towards greater excellence and equity.

Introduction

Bulgaria has made significant progress over the past few decades to improve socio-economic development and governance. As a result, the country has improved living standards and established stronger, more democratic governance structures. Reforms have been supported by a strong commitment to European Union (EU) integration, which also led Bulgaria to launch education reforms aimed at raising learning outcomes, increasing equity and addressing governance challenges like how to manage the supply and demand of teachers and allocate school resources, with increasing levels of decentralisation. Bulgaria's 2016 Pre-school and School Education Act also introduced significant policy changes that, among other things, established a new framework to evaluate schools and started rolling out a new student-centred, competency-based curriculum.

Despite this progress, Bulgaria continues to face high levels of poverty and socio-economic inequalities. The education system has also been slower to converge with European standards compared to peer countries in the region. For example, 47% of students in Bulgaria did not achieve baseline levels of reading proficiency in the 2018 OECD Programme for International Student Assessment (PISA), compared to the Eastern Europe and Central Asia regional average of 42% (OECD/UNICEF, 2021[1]). This share is almost twice the average (23%) of both the EU and OECD averages. Bulgaria also faces increasing educational disparities according to geographical location and ethnic and socio-economic background. The government recognises that sustained education reform is key to improving national productivity, addressing the needs of an ageing population and raising the quality of life for its citizens. This chapter provides an introduction on how evaluation and assessment in Bulgaria's education system can support more effective teaching and learning, thereby directing the sector towards greater excellence and equity.

National context

Economic and political context

Economic growth is hindered by a declining population and a skills mismatch

Bulgaria has carried out important economic and fiscal structural reforms over the past three decades. At the end of the 1990s, the country implemented a comprehensive tax reform and other macroeconomic measures that, alongside healthy market expectations linked to EU accession, have contributed to strong growth. Between 2001 and 2005, the country's annual gross domestic product (GDP) growth rate increased from 3.8% to 7.2% (World Bank, 2021[2]). However, convergence with EU income levels has been slower than for other Central and East European countries. Bulgaria still has the lowest per capita income within the EU, at USD 24 800 (purchasing power parity, PPP), compared to an EU and OECD average of around USD 46 000 (PPP) (OECD, 2021[3]; World Bank, 2021[2]).

Among factors that impact the country's economic performance, labour market shortages linked to a declining population and skills mismatch is a growing concern (EBRD, 2019[4]). This scenario places fiscal pressure on government expenditure and slows economic growth. Bulgaria's economy faced a shortage of workers prior to the COVID-19 crisis, with the country's working-age population set to shrink by a quarter in under 20 years (OECD, 2021[3]). In order to sustain growth alongside a shrinking working-age population, Bulgaria will need to improve investment in education to address skill mismatches and ensure that more young people are prepared to succeed in the labour markets of the future.

Emigration, especially among young and skilled professionals, is a major challenge

Between 1985 and 2016, Bulgaria's population declined by around 1.9 million with almost 48% of this decline led by net emigration (Caritas Bulgaria, 2019[5]). Since the European labour market fully opened

its doors to Bulgarian workers – around 2018 – more than a 100 000 citizens (approximately 1.5% of the population) have left the country, with close to half of them (44.7%) under the age of 30 (Republic of Bulgaria, 2019[6]). Current emigration flows are mainly fuelled by socio-economic factors, such as the income gap between Bulgaria and other EU countries, as well as a lack of job and career advancement opportunities. Many young Bulgarians leave to pursue higher education abroad, typically pursuing degrees in computer science, engineering and medicine (Financial Times, 2018[7]). While the share of net migration in Bulgaria's overall population decline has gradually decreased from 39% in the early 2000s to under 10% in the period between 2011 and 2016 (Open Society Institute, 2017[8]), the percentage of young and skilled professionals leaving the country (around 9% of upper secondary graduates from Bulgaria completed their tertiary education abroad in 2018 (EC, 2020[9]), coupled with negative birth rates, remains a major challenge for the country's future development.

Bulgaria has been undertaking significant governance reforms but public sector accountability remains a concern

Bulgaria has undertaken significant decentralisation reforms since the early 2000s, which has seen the country move from a monocentric governance model to a multi-level system. Today, Bulgaria has 2 regional governance levels, with 6 planning regions and 28 districts, and 1 decentralised level with 265 municipalities (OECD, 2021[10]). In the education sector, a set of decentralisation reforms implemented from 2007 onwards have extended more autonomy to local bodies and schools. Efforts to strengthen Bulgaria's governance system, however, remain hampered by integrity risks. In 2020, the country ranked 69th (out of 180 countries) in the Transparency International Corruption Perceptions Index, making it the lowest-ranked EU member (Transparency International, 2021[11]). To address integrity risks, Bulgaria established an integrity body in 2016, with inspectorates under the Council of Ministers. However, these bodies remain susceptible to political influence and have limited capacity to investigate integrity claims (GAN Integrity, 2020[12]). As a result, lack of integrity and inefficient bureaucracy remain two of the most cited governance challenges in Bulgaria (WEF, 2018[13]) and almost one in every five Bulgarians report having paid a bribe to receive a public service (Transparency International, 2021[14]). This context has implications for the education sector, where lack of trust in government hinders the implementation of reforms, such as the new competency-based curriculum, more formative evaluation practices and reliable system and school accountability.

Social context

Despite improvements in living standards, poverty rates remain high

Bulgaria's economic growth has translated into better living standards for its population. Between 1990 and 2019, for instance, Bulgaria's Human Development Index (HDI)[1] value has increased by 15.3% (see Table 1.1) (UNDP, 2020[15]) and employment rates have risen from 41% in 2001 to 54% in 2017. Economic growth has positively impacted poverty reduction, with rising real wages and deflationary trends improving the purchasing power of poor households, which rose from 12% in 2015 to 7% in 2018 (at the 2011 PPP USD 5.5 per day line) (World Bank, 2021[2]; 2020[16]).

At the same time, growth and productivity gains have not spread evenly across Bulgaria, contributing to significant regional and demographic disparities. The country now has the most unequal distribution of disposable income in the EU (Eurostat, n.d.[17]) and, at last count, the share of the population at risk of social exclusion was higher in Bulgaria than the EU average – or 1.5 times higher in 2019 (OECD, 2021[10]). These inequality issues are compounded by limited levels of social spending and the poor redistributive effects of the fiscal system (World Bank, 2020[16]). In 2020, the COVID-19 crisis saw Bulgaria enter an economic recession and has reinforced pre-existing socio-economic disparities. Public instruments to support people during and in the aftermath of the crisis have been limited (Jeliazkova and Mineve, 2020[18])

and poverty is expected to rise in 2021 as a result of job and income losses, increasing the population's socio-economic vulnerability (World Bank, 2021[19]).

Table 1.1. Human development and socio-economic indicators, 2018 and 2019

	HDI value (2019)	Life expectancy at birth[1] (2019)	Expected years of schooling (2019)	GDP per capita (PPP USD) (2019)	GNI per capita (PPP USD) (2017)
Bulgaria	0.816	75	14.4	24 561	23 325
Croatia	0.837	78	15.0	29 973	28 070
EU	0.900	81	16.8	46 467	44 635
Serbia	0.799	76	14.8	18 989	17 192

Note:
1. Total number of years of schooling a child of school-entry age can expect to receive if prevailing patterns of age-specific enrolment rates stay the same throughout the child's life.
Source: Adapted from UNDP (2020[15]), "Human Development Report 2020: Bulgaria", http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/BGR.pdf (accessed on 20 April 2021); Wolrd Bank (2021[2]), World Bank Open Data, https://data.worldbank.org/.

A significant share of Bulgaria's population and economic output is concentrated in the southwest region of the country

Around 85% of Bulgaria's population, which is numbered at around 7 million people, is classified as ethnic Bulgarian, according to the country's most recent census (NSI, 2011[20]). Bulgaria also has one of the EU's largest Roma communities, estimated at 700 000 to 800 000 people or around 10% of the population (according to Council of Europe estimations), as well as other minority groups (EC, n.d.[21]; Volen, 2016[22]). These minority groups typically reside in rural and remote regions of the country and many live in vulnerable conditions (EC, n.d.[21]; Volen, 2016[22]).

A significant share of Bulgaria's economic activity is concentrated in urban areas, especially in its southwest region. The difference in GDP per capita is highly pronounced between regions. In the Sofia City area, for instance, where one-fifth of the population lives, GDP per capita corresponds to that of the United Kingdom average (in PPP) (OECD, 2021[3]), while the regions in the northwest of the country are the poorest in the EU. These disparities have encouraged many to migrate to major cities or emigrate abroad, leading to significant depopulation in certain areas of the country.

Key features of the Bulgarian education system

Governance of the education system

Bulgaria's National Development Programme 2030 highlights the importance of a highly-skilled population for the country's socio-economic development

Bulgaria identified education and skills development as 1 of the 13 national priorities under the government's 10-year national development strategy, Bulgaria 2030. This plan was adopted by the Council of Ministers in 2020 and aims to increase the quality of human capital by training highly educated, innovative and active individuals, who are well prepared to transition from school to the labour market (Council of Ministers, 2020[23]). Bulgaria 2030 outlines the government's commitment to: i) increase participation in pre-school and school education and reduce early leaving rates; ii) improve the quality of education;[2] and iii) make education more responsive to the needs of the labour market. Each of these goals are associated with a key indicator and target: i) reduce the share of early leavers from education and training from 12.7% to 7%; ii) increase the share of 25-64 year-olds involved in education and training

from 2.5% to 7%; and iii) decrease the average share of low performers in PISA from 46% to 25% (average for PISA's 3 subject domains) (Council of Ministers, 2020[23]).

In line with overall objectives set by Bulgaria 2030, the Ministry of Education and Science (hereinafter the Ministry) has developed a *Strategic Framework for the Development of Education, Training and Learning in the Republic of Bulgaria 2021-2030* (hereinafter the Strategic Framework for Education), which is a more detailed long-term strategy focused exclusively on the education sector. The Strategic Framework for Education is based on a diagnosis of the Bulgarian education system's strengths, weaknesses, opportunities and threats (SWOT) and was oriented by EU standards of educational quality, inclusiveness and lifelong learning. The document sets out seven priorities (Box 1.1), which are accompanied by a set of objectives and an extensive list of actions aimed at guiding the country's education improvement efforts. However, there is no clear prioritisation of the most important issues and actions under these broad areas and there are a limited number of indicators to help direct and monitor progress. At the time of writing, the Ministry had not yet put in place an implementation plan for the strategy. However, in December 2021, the government announced plans for a new education programme to start revising and updating laws regulating the sector with the goal of making education more inclusive and improving co-ordination among stakeholders at the school level, state and local authorities, as well as across society (Fileva, 2021[24]).

Box 1.1. Policy priorities of the Bulgarian Strategic Framework for Education

The Bulgarian 10-year education strategy sets out seven broad priority areas for its education system:

1. Competencies and talents.
2. Motivated and creative teachers.
3. Effective and lasting inclusion.
4. Educational innovation, digital transformation and sustainable development.
5. Realisation in the professions of the present and the future.
6. Lifelong learning.
7. Effective and efficient governance and network participation.

For each priority, the strategy sets out objectives and main activities that will be undertaken. A selection of these objectives are:

- **Objective 1.1.** Training focused on the formation and development of key competencies and skills for living and working in the 21st century.
- **Objective 2.1.** Increasing the attractiveness and prestige of the teaching profession and providing the education system in the long run with teachers in all educational institutions and disciplines.
- **Objective 3.1.** Overcoming regional, socio-economic and other barriers to access to education.
- **Objective 4.1.** Promoting and developing a culture of innovation.
- **Objective 5.1.** Vocational education and training (VET) corresponding to the dynamics of the labour market.
- **Objective 6.1.** Expanding opportunities for lifelong learning.
- **Objective 7.1.** Transitioning from a standardised approach to educational management institutions to governance based on creativity and innovation.

Source: Ministry of Education and Science (2020[25]), *Strategičeska Ramka za Razvitie na Obrazovanieto, Obučenieto i Učeneto v Republika Bălgarija (2021-2030) [Strategic Framework for Development of Education, Training and Learning in Republic of Bulgaria (2021-2030)]*, https://www.mon.bg/upload/24429/Strategicheska-ramka_proekt_12112020.pdf (accessed on 23 February 2021).

Education policy is driven primarily by the Ministry

As part of broader decentralisation policies, responsibilities for school education in Bulgaria are organised across three government levels: national, regional and municipal (OECD, 2021[10]) (Table 1.2). However, schools have the autonomy to plan and manage their own budget and school staff (World Bank, 2014[26]). Education policy is co-ordinated by the Ministry, which is responsible for informing and implementing strategic priorities and legislative acts, as established by the National Assembly and the Council of Ministers. The Ministry comprises (among other units) 16 specialised directorates, including an Inclusive Education Directorate, a Vocational Education and Training Directorate and an Education of Bulgarians Abroad and School Network Directorate. Each of Bulgaria's 28 administrative regions has a regional department of education (RED) that reports to the Ministry and is responsible for helping to implement national pre-school and school education policies. Until recently, REDs had a mandate to monitor and evaluate schools but with the creation of a new National Inspectorate of Education (hereinafter the Inspectorate), the REDs are now responsible for providing methodological support to schools. The heads of these regional departments are also responsible for appointing school principals in their region (see Chapter 4).

Table 1.2. Responsibilities across government levels in the Bulgarian education system

Central government	Districts	Municipalities
Higher education Special and disciplinary schools	Employment and vocational training	Pre-school education Early, primary and secondary education (delegated) Construction and upkeep of buildings Canteens and extracurricular activities

Source: Adapted from OECD (2021[10]), *Decentralisation and Regionalisation in Bulgaria: Towards Balanced Regional Development*, https://doi.org/10.1787/b5ab8109-en.

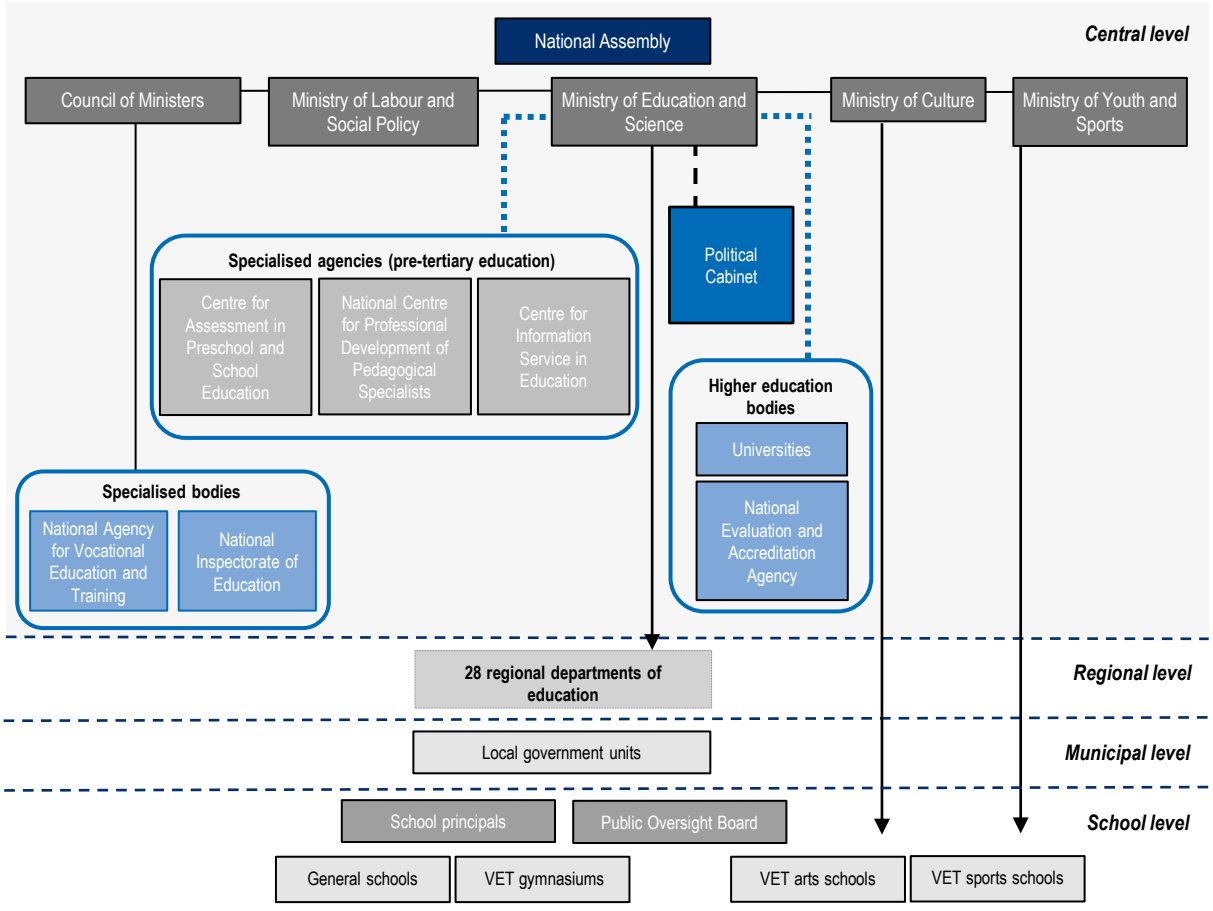
Bulgaria has introduced several major education reforms in recent years

Bulgaria has undertaken several large-scale education reforms over the past years to try to address inefficiencies and inequities in the system. In 2007, the country began to rationalise its school network in the context of demographic trends and it has subsequently introduced a per capita-based funding formula for schools and given more autonomy to school principals over financial affairs and decision making (World Bank, 2014[26]). Another cycle of major reforms was introduced in 2016 with the Pre-school and School Education Act, which has sought to modernise the country's curriculum – through a new emphasis on competencies and student-centred approaches – and make education more inclusive. Through this act, all schools are required to implement measures to reduce early school leaving and integrate students from vulnerable demographics. A recent amendment to the act in 2020, has made schooling compulsory from age four, to ensure that more children are prepared to enter their primary education. Another priority has been to improve the quality and relevance of the country's VET offering, to ensure that programmes are better linked to labour market needs and more attractive to students with a range of preferences and competencies. For example, Bulgaria has strengthened consultation with the private sector in designing its VET offering and it has developed a career guidance system as well as a more modular (as opposed to subject-based) curriculum. In addition, Bulgaria has been working with the EU to establish a track for dual VET (which combines school-based study with workplace training) and updated its national strategy for VET in 2019 to reflect this priority. The recently announced national education programme and pandemic recovery efforts represent critical opportunities for Bulgaria to strengthen the foundations for implementing its education reform agenda.

The Ministry relies on specialised bodies for technical expertise

Bulgaria has several specialised public bodies that provide technical expertise to support the government in developing and administering the education system (Figure 1.1). The Centre for Assessment of Pre-school and School Education (hereafter the Centre for Assessment) organises, prepares and conducts external assessments of student learning and is responsible for managing Bulgaria's participation in international assessments on pre-tertiary education (see Chapters 2 and 5). Bulgaria also established a new Inspectorate in 2018, which was modelled after European inspection systems to carry out external school evaluations (see Chapter 4). Other specialised agencies include the National Agency for Vocational Education and Training, which has a mandate to license activities in the VET system and control the quality in licensed training institutions, and the National Evaluation and Accreditation Agency, responsible for accreditting tertiary education providers. Some of these bodies are subordinate to the Ministry while others, such as the Inspectorate and the National Evaluation and Accreditation Agency are independent. However, independent bodies are not insulated from political influence. For example, the prime minister appoints the director of the Inspectorate without having to undergo a formal confirmation process.

Figure 1.1. System of education governance in Bulgaria



Note: Different types of secondary schools are included in the organigram because some of them are managed by ministries other than the Ministry. Earlier levels (early childhood education and care [ECEC] and primary) are under the responsibility of the Ministry.
Source: (Bulgaria, 2021[27]), *Country Background Report for the OECD Review of Evaluation and Assessment in Education: Bulgaria*, Unpublished.

Bulgarian schools have high levels of autonomy to manage their budget and staff and develop their curricula

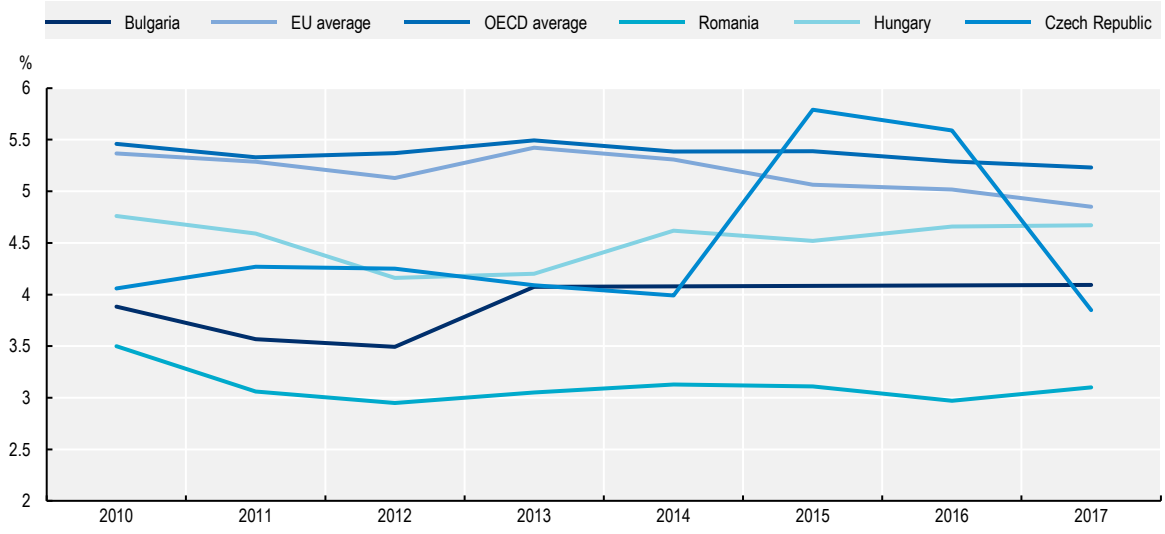
As part of broader decentralisation reforms, Bulgarian schools have been given autonomy to determine how they spend resources. Since 2008, schools have had a delegated budget, meaning that although school funding is still dependent on government allocation, schools have full control over how to use their allocated budget once received. School principals are also responsible for appointing teachers and any other decisions related to managing the teaching staff (World Bank, 2014[26]). Moreover, the current Pre-school and School Education Act allows a stratum of schools (so-called "innovative schools", see Chapter 4) to choose and design their curricula and implement them based on student needs. Part of the curriculum is then developed by teachers and approved by the principal of each school (according to stakeholders who spoke with the OECD review team, around 10% of the curriculum is developed at the school level). School-based curricula are guided by the framework curriculum developed by the Ministry, together with state education standards, which set out national learning goals for each subject at the end of each stage of schooling.

Funding of the education system

Public spending on education has increased but remains low compared to peer countries

Bulgaria has among the lowest rates of government expenditure on education in the EU (Figure 1.2). However, prior to the pandemic, Bulgaria had sought to raise spending: expenditure on education increased by 14% between 2010 and 2018 – significantly faster than the EU average of 3.7% (UIS, n.d.[28]). The most significant expenditure gains so far have been in secondary, as well as pre-primary and primary education, which grew by 23% and 18% respectively (UIS, n.d.[28]). Expenditure in tertiary education, meanwhile, declined by 11% over the same period (EC, 2020[29]).

Figure 1.2. Share of government expenditure on education as a percentage of GDP, 2010-17

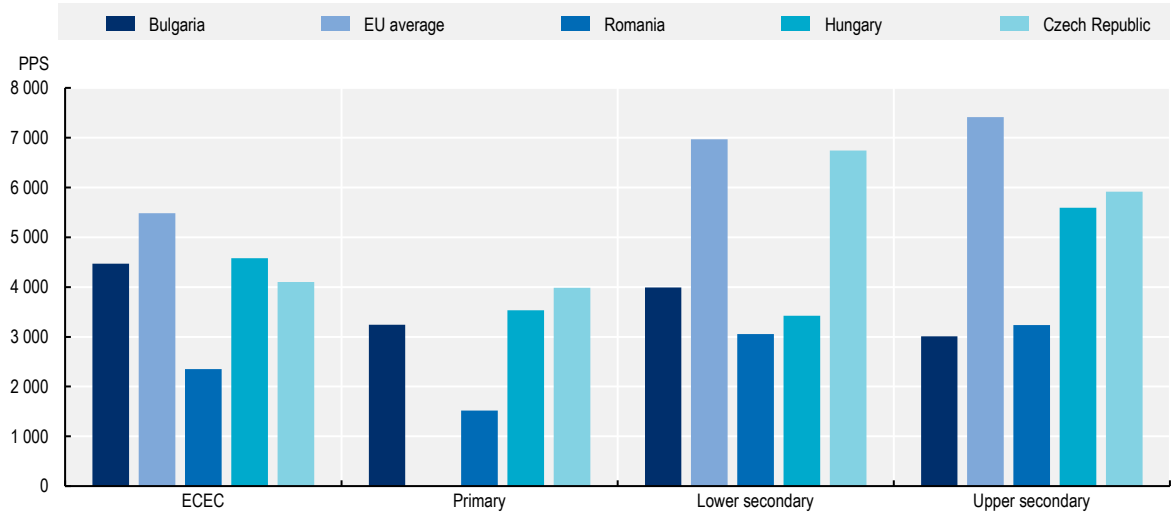


Note: Data for Bulgaria from 2014 to 2016 are missing.
Source: UIS (n.d.[28]), *UIS.Stat*, http://data.uis.unesco.org/ (accessed on 23 September 2021).

StatLink https://stat.link/p6d3nl

In terms of public per student spending, funding in Bulgaria is well below the EU average (Figure 1.3), though above that of some neighbouring countries. For example, when looking at lower secondary education, Bulgaria spends 3 990 PPS (Eurostat Purchasing Power Standard)[3] per student, more than Romania (3 053 PPS) and Hungary (3 421 PPS) but less than the Czech Republic (6 740 PPS) and EU average of 6 968 PPS (Eurostat, n.d.[17]). Bulgaria also spends much less per student than the OECD average across all education levels (see section on key indicators). While increasing investment in education is one of the government's main priorities, this is likely to be difficult in light of the ongoing COVID-19 pandemic, which is putting additional pressure on public budgets and increasing the demand for resources in other sectors.

Figure 1.3. Public expenditure on education per student based on full time equivalent, by education level, 2017



Note: The EU average for primary education is not available.
Source: Eurostat (n.d.[17]), *Eurostat Database*, https://ec.europa.eu/eurostat/data/database (accessed on 23 February 2021).

StatLink https://stat.link/ov0lc9

Rising teacher salaries will drive expenditure in the future and increase spending pressures

According to the OECD Teaching and Learning International Survey (TALIS), lower secondary teachers in Bulgaria are on average 49 years old, compared to the OECD average (of countries participating in the survey) of 44 (OECD, 2019[30]). More than half of the teacher workforce in Bulgaria (51%) is aged 50 years old or above, compared to 34% on average among OECD countries (OECD, 2019[30]). Teacher shortages have already started to emerge in recent years and, even with a declining student population, significant pressure to replace the large cohorts of retiring teachers is expected (EC, 2019[31]). Moreover, the COVID-19 pandemic may motivate older (and thus more vulnerable) teachers to retire early, as has been evidenced in other countries like the United States (NEA, 2020[32]), further accelerating the need for new teachers. To help raise the status of the teaching profession and recruit new teachers, the Bulgarian government has started to increase teacher salaries, with plans to raise salaries to 120% of the national average salary (EC, 2019[31]). Since 2010, around a third of the growth in public expenditure on education has gone towards teacher salaries and teachers' average gross wage has increased from 94% of the national average in 2016 to 117% in 2020 (EC, 2020[29]; 2020[9]). Recently, Bulgaria has cut tuition fees for individuals entering pedagogy courses and has begun to reimburse transportation and accommodation costs for teachers working in rural and remote areas (EC, 2019[31]). These measures have the potential to

increase the attractiveness of the teaching profession; however, they will also place additional pressure on the country's education budget in the years to come. In such a context, it is critical that wage gains are associated with measures that raise teaching effectiveness. Chapter 3 examines how the teacher appraisal system can help translate greater investment into better learner outcomes and skills.

Bulgaria has been working to increase the efficiency and fairness of education funding but important disparities between municipalities remain

School education in Bulgaria is mainly funded by the central government (around 97%) (Bulgaria, 2021[27]). However, public schools also receive funds from municipal budgets (directed at infrastructure, heating, food and student transportation) and can fundraise to supplement their resources. Funds are distributed to schools based on the type of educational institution, the number of students enrolled and by education level. The funds from the state budget allocated to local governments for schools is also linked to a regional coefficient, which considers geographic location (i.e. whether the municipality is close to the regional centre) and population size. Introduced in 2018, this financing model is a recent development and aims to support a fairer and more efficient distribution of funds, minimise regional disparities and ensure that funding modalities support modernisation reforms. The government has also established that education funds from the state budget are apportioned annually and that, each year, the budget must be higher (as a share of GDP) than the previous one.

Bulgaria's new school funding model aims at directing more financial resources towards small kindergartens and schools, helping to smooth out disparities in the pre-tertiary school system. However, educational infrastructure in many regions remains underfunded, with schools often lacking basic facilities or equipment. For example, in poorer municipalities, adequate heating remains a challenge during the winter months (EC, 2019[31]). Funding as it relates to infrastructure remains heavily dependent on the fiscal capacity of municipalities, as well as parental support. Although the government has plans to link external school evaluation results to additional funds, this will not be made available until all schools have been inspected, which will take time (see Chapter 4). Finally, governance issues contribute to the misalignment between the provision of quality education and funding. For example, municipalities have no real decision making power when it comes to questions related to school quality, such as hiring municipal school directors or teaching staff (OECD, 2021[33]).

Structure of schooling in Bulgaria

Main characteristics of the structure of schooling

In Bulgaria, participation in education is compulsory between the ages of 4 (since 2020) and 16. This corresponds to pre-primary education, which runs for three years, until the completion of the first stage of upper secondary education (see Table 1.3). The mean years of schooling in the country[4] has increased slightly over the past 15 years and is broadly commensurate with EU and OECD averages (11 years) (UIS, n.d.[28]). Basic education is provided free of charge, except in private schools, and most students do not change schools up until they enter upper secondary education. Almost all schooling in Bulgaria is provided through the public system – 95.5% of Bulgaria's 4 425 schools are public and only around 2% of students in Bulgaria attend private schools (Bulgaria, 2021[27]).

Table 1.3. Structure of the education system in Bulgaria

<table>
<tr><th>ISCED 2011</th><th>Starting age</th><th>Grade</th><th>Note</th><th colspan="5">Education programme</th></tr>
<tr><td>8</td><td></td><td></td><td>Tertiary education</td><td colspan="5">PhD programmes - 3-4 years</td></tr>
<tr><td>7</td><td></td><td></td><td>Tertiary education</td><td colspan="3" rowspan="2">Integrated bachelor's and master's programmes – 5-6 years</td><td colspan="2">Master's programmes - 1-2 years</td></tr>
<tr><td>6</td><td></td><td></td><td>Tertiary education</td><td colspan="2">Bachelor's programmes - 4 years</td></tr>
<tr><td>5</td><td></td><td></td><td>Tertiary education
(not mandatory to access ISCED 6)</td><td colspan="5">Professional bachelor's programmes - 3 years</td></tr>
<tr><td>4</td><td></td><td></td><td>Post-secondary non-tertiary education
(not mandatory to access tertiary education)</td><td colspan="5">Non-tertiary VET education - 1 year</td></tr>
<tr><td rowspan="8">3</td><td>18</td><td>XII</td><td rowspan="2">Stage two of secondary education</td><td rowspan="2">General secondary education - 2 years</td><td rowspan="2">Secondary education (combining general and VET at stage two) - 2 years</td><td colspan="2">Secondary education (combining general and VET at stage two) - 1 year</td><td rowspan="2">Secondary education (combining general and VET at stage two) - 2 years</td><td rowspan="5">Secondary education (combining general and VET since stage one) - 5 years</td></tr>
<tr><td>17</td><td>XI</td><td rowspan="4">Secondary education (combining general and VET since stage one) - 4 years</td><td>Secondary education (combining general and VET at stage two) - 1 year</td></tr>
<tr><td>16</td><td>X</td><td rowspan="3">Stage one of secondary education
(compulsory)</td><td colspan="2" rowspan="3">General secondary education - 3 years</td><td colspan="3" rowspan="3">Secondary education (combining general and VET at stage one) - 3 years</td></tr>
<tr><td>15</td><td>VIIII</td></tr>
<tr><td>14</td><td>VIII</td></tr>
<tr><td rowspan="3">2</td><td>13</td><td>VII</td><td rowspan="3">Stage two of primary education
(compulsory)</td><td colspan="5" rowspan="6">Primary education - basic education (single structure)</td></tr>
<tr><td>12</td><td>VI</td></tr>
<tr><td>11</td><td>V</td></tr>
<tr><td rowspan="4">1</td><td>10</td><td>IV</td><td rowspan="4">Stage one of primary education
(compulsory)</td></tr>
<tr><td>9</td><td>III</td></tr>
<tr><td>8</td><td>II</td></tr>
<tr><td>7</td><td>I</td></tr>
<tr><td rowspan="3">02</td><td>6</td><td rowspan="3"></td><td rowspan="3">Pre-primary education
(beginning of compulsory attendance)</td><td colspan="5" rowspan="3">Pre-primary education</td></tr>
<tr><td>5</td></tr>
<tr><td>4</td></tr>
<tr><td rowspan="4">01</td><td>3</td><td rowspan="4"></td><td rowspan="4"></td><td colspan="5" rowspan="4">Early childhood educational development</td></tr>
<tr><td>2</td></tr>
<tr><td>1</td></tr>
<tr><td>0</td></tr>
</table>

Note: The blue triangles represent the different pathways to tertiary education.

Bulgaria's declining student population required a rationalisation of the school network

Bulgaria's declining population has required a rationalisation of the school network. The country's student population has decreased by around a third since the early 2000s and over 1 000 schools have been closed, mostly in remote areas (Republic of Bulgaria, 2019[6]). This trend is likely to continue as the school-age population (3-18 year-olds) is expected to decline further, by around 9% by 2030 (EC, 2019[31]). Although the overall student population is decreasing, urban areas are declining at a slower rate than rural areas (World Bank, 2017[34]). In some large urban localities, the student population is even increasing, as a result of internal migration. Since the country's youth are now mainly concentrated in urban areas (75% of the population under working age in 2019) (NSI, 2020[35]), there will likely be far fewer schools in rural areas in the future. For example, the number of kindergartens across the country has decreased by 11.4% between 2013 and 2017, with 283 kindergartens in small- and medium-sized municipalities being closed over the period (Republic of Bulgaria, 2019[6]). In Bulgaria's big cities meanwhile, 47 new kindergartens have been opened, with 24 in Sofia alone (Republic of Bulgaria, 2019[6]). While this rationalisation may be necessary, it also risks limiting access for students from rural and remote areas, where Bulgaria's ethnic minorities are most present (Minority Rights Group International, 2018[36]). To address this risk, Bulgaria annually publishes a list of "protected schools" – or schools that cannot be closed if it means that a significant number of students will have to travel very long distances in order to attend school (Council of Ministers, 2020[37]).

At the same time, authorities are under pressure to continue opening more schools in urban areas, particularly if they are to extend instructional time. Between Grades 1 and 12, students have traditionally spent half the day at school and half the day completing homework and independent study at home (State University, 2021[38]). In primary school, students can also benefit from "extended care", or *zanimalnya*, whereby they spend the second half of the day completing their study tasks under the guidance of a teacher – though this is only granted upon the explicit request of parents (State University, 2021[38]). In large urban areas, many schools offer "double-shift" instruction due to the shortage of school premises (State University, 2021[38]) – obstructing an extension of instructional time.

Most students who finish basic education enrol in VET upper secondary schools

Upper secondary education in Bulgaria is divided into two stages: stage one is mandatory (Grades 8-10) and stage two is not (Grades 11-12). Under this structure, students are selected into different study programmes at Grade 7 (around age 13), where they will either follow an academic programme in a general secondary school or "gymnasium", attend a profiled high school that specialises in areas such as foreign language or mathematics, or choose to enrol in a VET programme in a secondary vocational education school. This process of selecting students into upper secondary school is partly based on students' results in an external assessment taken after Grade 7 (see Chapters 2 and 5). Students with the best results have access to elite, high-performing schools. Around 52% of students in upper secondary education in Bulgaria (after Grade 7) enrol in VET programmes, compared to a EU average of 48% and 43% among OECD countries (2019) (UIS, n.d.[28]). However, only VET students who chose to take an examination linked to VET qualification at the end of their course are granted a professional qualification diploma. Around one-third of upper secondary VET graduates choose not to obtain this professional qualification, which might indicate that VET is not their first study choice but rather a more practical and less academic pathway towards higher education. Starting in 2022, the VET qualification examination will become mandatory for students in this track (Bergseng, 2019[39]).

Pathways through Bulgaria's school system may reinforce inequalities

Tracking into different schools and study programmes begins at a very young age in Bulgaria, at around age 13 when students are in Grade 7. This is one of the earliest selection systems amongst OECD and EU economies, where student tracking does not take place until students are around age 16 (OECD,

2020[40]). In Bulgaria, not only are students at this stage sorted into general and VET pathways but also several programmes within these general distinctions. These programmes are offered by different schools, which vary significantly in terms of quality (rather than as options within the same school). While having a diverse range of school types and programmes can cater for the diverse needs of students, without careful regulation and implementation it can also increase horizontal stratification (see Chapter 2).

Upper secondary education is therefore highly selective, with a strong societal emphasis on identifying the very top students for placement in elite schools. Bulgaria has one of the highest rates of 15-year-olds who attend an academically selective school and also the highest "isolation index" between socio-economically disadvantaged and high-achieving students, according to PISA (OECD, 2019[41]). Indeed, some of the main critiques of early tracking systems relate to risks for low-achievers (as tracking tends to deprive low-performing students of the positive peer effects from high-performance students) and the fact that students in vocational tracks usually follow a very different curriculum that sets them on a learning trajectory from which it is subsequently hard to escape (Korthals, 2015[42]; OECD, 2016[43]). There is also significant concern that tracking systems usually reinforce existing socio-economic inequities, as socio-economically disadvantaged students tend to be disproportionately grouped into the tracks considered of lower quality (Oakes, 2005[44]). Private tutoring is also a very common practice among students and parents in Bulgaria, a factor that could further increase the gap in access to quality education between students who count on extra resources for preparing for the Grade 7 test and those coming from poorer socio-economic backgrounds.

Main trends in participation, learning and equity

While significant reforms have been introduced to modernise and improve the education and training system, Bulgaria continues to face a number of important challenges – not least, deteriorating participation rates and learning outcomes, skill mismatches, an ageing teaching workforce and problems of equity, with gaps observed between provinces and for certain segments of the population.

Participation

Extending compulsory education to reach higher enrolment rates in pre-primary education is a priority for the country but barriers to access persist

Raising participation in ECEC is a central priority for Bulgaria. The benefits of having children enrol in education at a young age in terms of long-term development and equity are recognised in the decision to make pre-school education compulsory for children from four years of age from 2020. This and other recent reforms were introduced to increase participation rates in pre-primary education, which have been low and actually decreasing since 2015 (Eurostat, n.d.[17]; EC, 2020[29]). In 2019, only 83% of children aged 4-7 years old were enrolled in pre-schools, compared to an EU average of 95% (Eurostat, n.d.[17]). Recently, Bulgaria has launched an EU-funded programme to support the most disadvantaged children by financing care-related fees, providing parental education as well as pedagogical, psychological and social support for children (EC, 2020[29]). Such initiatives may warrant expansion.

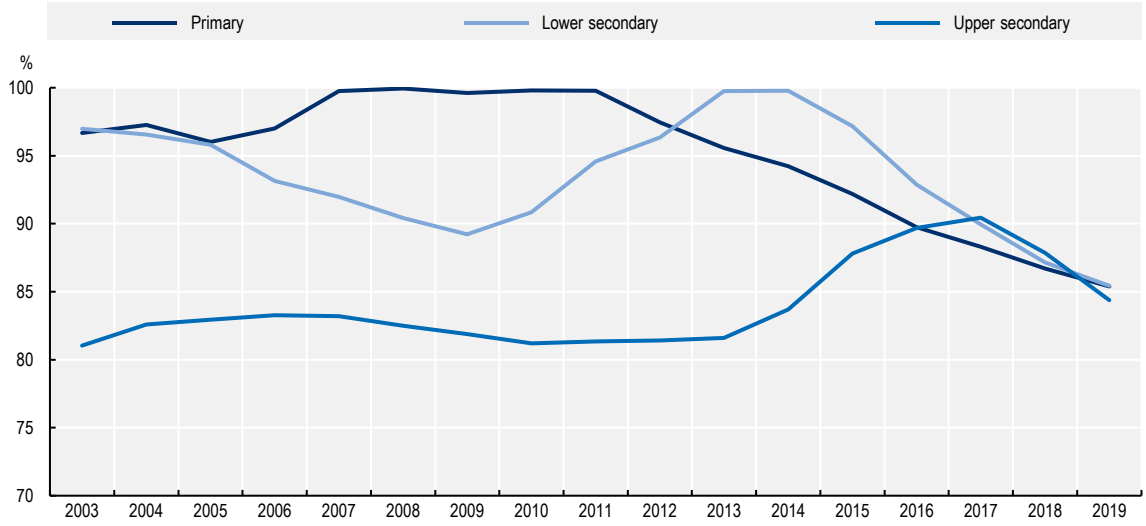
Anecdotal evidence and limited participation in early childhood education among certain demographic groups, such as the country's Roma population, suggest that entry barriers remain. Families may be discouraged from enrolling their children in early childhood education before the age of four on account of its cost and lack of complementary services. Prior to the age of four, full-day pre-school programmes charge parents fees and the latter may also be discouraged by the insufficient provision of transportation services, food and school supplies. In addition, parental leave policies in Bulgaria provide parents with attractive salary replacements up until their children reach the age of two (EC, 2021[45]). Other factors influencing access to this level of education include limited classroom space and policies that prioritise the

children of working parents, among others (World Bank, 2018[46]). Perhaps, as a result, the participation of Roma children in pre-primary education in Bulgaria remains much lower than among other ethnic groups and below the EU target of 95%. It stood at 70% in 2016, the most recent year with available data (Volen, 2016[22]). However, it is important to note that the country has achieved a marked improvement over a relatively short period of time, with only 40% of Roma children of pre-school age participating in education in 2011 (Volen, 2016[22]).

Bulgaria has made impressive progress in upper secondary enrolment but this may be tested by declining levels of enrolment in both primary and lower secondary education

Data suggest that enrolment has declined steadily for both primary and lower secondary education over recent years (Figure 1.4). The primary enrolment rate has declined from close to "full" net enrolment in 2010 (99%) to 85% by 2019, while secondary enrolment has declined from 92.5% in 2015 to 85% in 2019 (UIS, n.d.[28]). Part of this change in the data might be explained by changes in how data are collected and other challenges in Bulgaria's education monitoring and information system (see Chapter 5). However, the data that are currently available suggest that the country now has one of the lowest rates of lower secondary enrolment amongst peers (85%) and this has been a concern for Bulgaria. By comparison, the net rate of lower secondary enrolment stood at 98% in Serbia and 97% in Hungary and Poland in 2019 (UIS, n.d.[28]). Only Romania has seen a similar noticeable decline (though less marked) since 2010 – from 94% in 2010 to 91% by 2018 (UIS, n.d.[28]). At the same time, Bulgaria has made impressive gains in increasing the upper secondary enrolment rate relative to regional peers, registering one of the sharpest increases in the region alongside Poland, with a particularly steep climb since 2014. Net enrolment rates have climbed steadily from 81% in 2010 to 90% by 2017 (UIS, n.d.[28]). However, it appears that enrolment had begun to fall since 2017, perhaps in response to the declining share of students completing earlier education levels, with the COVID-19 pandemic representing another set of risks to upper secondary participation and completions.

Figure 1.4. Net enrolment rate by level of education in Bulgaria, 2003-19



Source: UIS (n.d.[28]), *UIS.Stat*, http://data.uis.unesco.org/ (accessed on 23 September 2021).

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The percentage of students who do not complete the academic year is similar between basic and upper secondary education

According to national data, in the academic year 2019/20, 2.5% of all students enrolled in basic education did not finish the academic year, very similar to the situation in upper secondary education (2.4%) (NSI, n.d.[47]). This percentage is higher in remote areas – the rate of students dropping out before completing the academic year reaches 30% in villages and over 15% in small towns (EC, 2018[48]). It is also higher among Bulgaria's minority groups, such as the Roma (45% of Roma do not complete secondary education) (Republic of Bulgaria, 2019[6]), as well as amongst persons with disabilities.

Bulgaria's National Statistical Institute (NSI) separates the reasons behind school dropout rates into three categories: i) family reasons; ii) unwillingness; and iii) going abroad. According to national data, "going abroad" is the main reason behind early school leaving up until upper secondary education (NSI, 2020[35]). Indeed, a massive tracking campaign carried out in 2017 and 2018 suggested that over 80% of school-age children not enrolled in Bulgarian schools were actually living abroad (EC, 2018[48]). However, NSI data suggest that "family reasons" also account for a significant share of dropouts – in 2018/19, 41% of students that dropped out of primary schooling and 39% of students that dropped out of lower secondary schooling did so for "family reasons", compared to 50% and 42% that dropped out because they went abroad (for primary and lower secondary respectively) (NSI, 2020[35]). School closures, especially in small settlements, are also believed to play a role in the high number of school dropouts (Republic of Bulgaria, 2019[6]). Other factors such as negative attitudes towards the educational process and difficulties in learning also influence higher dropout rates (Republic of Bulgaria, 2019[6]).

The implications of the COVID-19 pandemic on schooling in Bulgaria, as elsewhere, are only just starting to be understood. However, the indicators point to the likelihood of the economic, educational and social pressures behind dropping out being exacerbated. Some of the children who struggled the most to adapt to school closures and the transition to online classes, for example, might not come back to school. This is particularly true for the most disadvantaged and vulnerable students. A survey from the United Nations Children's Fund (UNICEF), for instance, showed that 8% of students did not participate in distance learning or did not participate regularly due to barriers to accessing online learning (Yankova, 2021[49]).

More Bulgarians are participating in tertiary education compared to the past decade but the transition to the labour market is still difficult

Gross enrolment in tertiary education[1] has steadily increased since 2010 – from 58% in that year to 73% in 2019 (UIS, n.d.[28]). This is high compared to Bulgaria's regional peers – in 2018, the gross enrolment ratio stood at 64% in the Czech Republic, 51% in Romania and 50% in Hungary (UIS, n.d.[28]). In part, these high enrolment figures are linked to a lack of attractive vocational and technical pathways after school, as well as issues around secondary education (and specifically, selection and certification practices) (see Chapter 2) that constrain a smooth school to work transition for young people. In 2020, from the total number of students enrolled in tertiary education (without counting those following a doctoral degree), most (63%) were enrolled in bachelor's degree programmes (ISCED[2] 6), compared to 4% in shorter "professional bachelor's" courses (ISCED 5) and 33% in master's degree courses (NSI, 2020[35]). Recently, however, there has been a decline in the total number of students enrolled in tertiary education. In 2019/20, the number of students enrolled was 19% lower at the bachelor's education level and 16% lower at the master's level than in 2014/15 (NSI, 2020[35]). The number of PhD students also decreased but by a lower rate: only 3% in the same timeframe (NSI, 2020[35]).

Participation in tertiary education in Bulgaria however, is not necessarily linked to better labour market outcomes. Employment rates amongst recent tertiary graduates (those aged 20-34, not in education and training) in 2018 was slightly below the EU-28 average, at 84.5% (compared to the EU-28 average of 85.5%) (Eurostat, 2019[50]). This was lower than the same demographic group in peer countries in the EU, such as Hungary (91.5%), Latvia (91%) and Romania (89%) but higher than rates in the Western Balkans

(69% in Serbia, 66% in Montenegro and 55% in North Macedonia) (Eurostat, 2019[50]). This may be due to issues around the quality and relevance of tertiary education. A high share of students are enrolled in a small number of subjects, suggesting some misalignment with both labour market needs and Bulgaria's economic development goals. In 2018, 32% of tertiary graduates held qualifications in business, administration and law, and 13% in social sciences, journalism and information. Only 3% held qualifications in natural sciences, mathematics and statistics, 4% in information and communication technology (ICT) and 12% in engineering, manufacturing and construction (Eurostat, n.d.[17]).

Learning environment and outcomes

International assessments suggest that many Bulgarian students have not reached baseline proficiency in core subjects

The average learning outcomes of 15-year-old students in Bulgaria have remained relatively low overall since the country's first participation in PISA in 2000. Comparing results from 2018 with previous cycles, there has been a significant statistical decline in reading learning outcomes as compared to 2012 scores (436 to 420) and also in science, compared to 2015 scores (446 to 424). On the other hand, Bulgaria has made progress in mathematics, as compared to 2006 results (413 to 436) (Figure 1.5). Today, students in Bulgaria perform lower than their peers in OECD countries across all subject domains, particularly in reading (73 score point difference) (OECD, 2019[51]). Moreover, a high share of students still do not achieve baseline levels of proficiency, with 32% of 15-year-old pupils scoring below Level 2 (considered low performance) in all 3 subjects (compared to an EU average of 14% and OECD average of 13%) (OECD, 2019[51]). Only 5.5% scored above Level 5 in at least 1 subject, compared to an EU average of 14% and OECD average of 15.7% (OECD, 2019[51]).

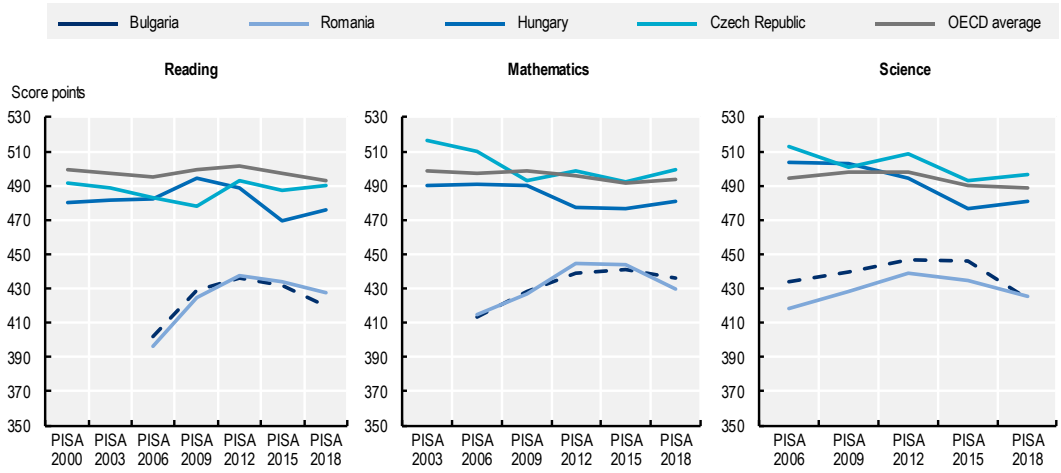
The particularly low average score registered for reading in PISA 2018, which is below most lower-income countries and countries with lower levels of education spending (Figure 1.5), could indicate issues around confidence and engagement in learning that become more problematic as students move through the system and literacy is presumed. In primary school, Bulgarian students appear to perform well in reading tasks – the country's average score for reading at Grade 4 is one of the highest internationally (at 552) in the 2016 Progress in *International* Reading Literacy Study (*PIRLS*) and above the PIRLS scale centre point of 500 (IEA, 2017[52]). The fact that PIRLS is a curriculum-based assessment while PISA is a skills-based assessment could further suggest that low PISA scores relate to the instructional practices that still dominate in Bulgaria, which are focused on the reproduction of knowledge and tend to neglect higher-order competencies and the application of knowledge to real-world contexts. Another worrying trend is that Bulgaria's average scores for Grade 4 in the Trends in Mathematics and Science Study (TIMMS) have declined over the period between 2015 and 2019, in both mathematics and science – from 524 to 515 and 536 to 521 respectively, though both remain above the Trends in International Mathematics and Science Study (TIMSS) scale centre point of 500 (IEA, 2020[53]). The most marked declines have been in the "knowing" cognitive domain (which decreased by 16 points in mathematics and 25 points in science between 2015 and 2019) (IEA, 2020[53]).

Limited student engagement in Bulgarian schools can disrupt learning

Many Bulgarian schools seem to face difficulties with motivating and engaging students. Truancy levels are high compared to other PISA-participating economies. As much as 44% of students in Bulgaria reported they had skipped a whole day of school at least once (OECD average 21%) and 57% had arrived late at school (OECD average 48%) (OECD, 2019[54]). Indeed, student truancy has a negative effect on the learning environment and, therefore, on student performance and engagement (OECD, 2019[54]). PISA 2018 results show that on average across OECD countries, skipping classes and being late for school have a detrimental effect on reading performance (a decline in 37 and 26 score points respectively)

(OECD, 2019[54]). Moreover, during the COVID-19 pandemic, with periods of physical school closures, keeping students engaged in an online environment where classes often took place added extra pressure on teachers, parents and students themselves. This is particularly the case for students from disadvantaged backgrounds, as they are more likely to lack the parental support, resilience, learning strategies or engagement to learn on their own (OECD, 2020[55]).

Figure 1.5. Trends in PISA average scores by PISA cycle



Source: OECD (2019[51]), *PISA 2018 Results (Volume I): What Students Know and Can Do*, https://doi.org/10.1787/5f07c754-en.

StatLink https://stat.link/qwhpo4

Bulgaria is working hard to support its teachers but lack of training tailored to teachers' needs remains a challenge

Although overall participation in continuous professional development has increased over recent years (85% of lower secondary teachers in 2013 compared to 96% in 2018 (OECD, 2019[56])), a significant share of Bulgarian teachers still lack training in specific areas. In TALIS 2018, 19% of teachers reported a high need for further training in their subject field (compared to an EU average of 6%), 20% for further training on the curriculum (compared to an EU average of 5%), 17% for further training around pedagogical competencies (compared to an EU average of 8%) and 23% for further training in ICT skills (compared to an EU average of 16%) (OECD, 2019[56]). Teachers in Bulgaria also reported a higher need than the EU average for training in student behaviour and classroom management, in teaching in a multicultural or multilingual environment and for teaching children with special needs (OECD, 2019[56]). The latter was reported as particularly acute (OECD, 2019[56]). Currently, teachers in the country count heavily on the support of colleagues to upgrade their skills and implement new ideas. In TALIS 2018, 86% of teachers in Bulgaria reported that they and their colleagues support each other in implementing new ideas, compared to an OECD average of 78% (OECD, 2019[56]). Participation in more formal training, however, appears to be restricted by high costs – 60% of teachers report this issue, compared to 44% in the EU-23 (OECD, 2019[56]; EC, 2019[31]). The Bulgarian government is attempting to provide more opportunities for professional development amongst the teaching workforce: a 2016 ordinance strengthens regulation around teachers' continuous professional development and allows new institutions to provide courses and programmes for teachers, subject to approval from the Ministry.

Equity

Dropout rates and early school leaving are higher in rural and remote areas, and learning outcomes also differ significantly by geographic location

The growing rate of school dropouts is a concern in Bulgaria and this risk is particularly pronounced in remote and rural areas. At the same time, the percentage of students classified as early school leavers (18-24 year-olds who completed at most lower secondary education and are not involved in further education) is also high in rural areas, reaching as much as 24.5%, compared to an EU average of 11% (Eurostat, n.d.[17]). It seems that the dropout rate and percentage of early school leavers are also correlated with municipality size: large municipalities and provinces perform better than small ones (Desislava, Zornitsa and Yavor, 2017[57]). Indeed, students in rural areas also lag when it comes to learning outcomes, which may partially explain the higher percentage of school leavers and dropout rates in these areas. According to PISA 2018 results, 15-year-old students in urban areas scored as much as 115 points higher than those in rural places, compared to an OECD average of 48 points (OECD, 2019[51]).

Gaps in both participation and learning outcomes are persistent and observed amongst different ethnic groups and socio-economic levels

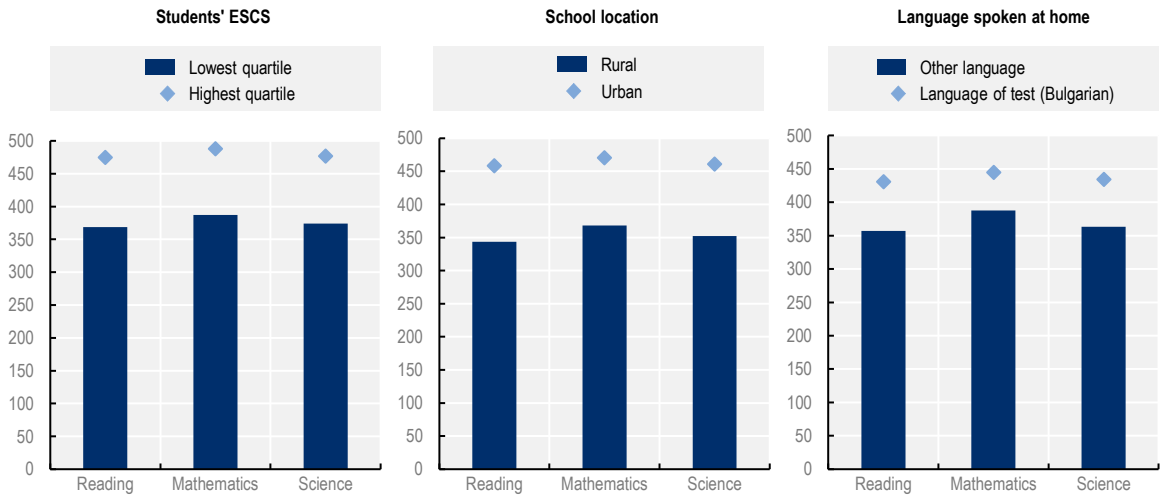
Census data collected in 2011 found that 23% of Roma children and 12% of Turkish-origin children aged between 7 and 15 were not in school, compared to only 6% among the rest of the population in the same age category (UNICEF, 2016[58]). Though one can observe an increase in the share of Roma finishing primary school and even secondary and tertiary education, Roma children remain significantly underrepresented in non-compulsory early childhood and pre-primary education, which has been shown to have an important impact on educational attainment later on. Roma families appear to be discouraged by fees associated with non-compulsory pre-school education (World Bank, 2018[46]), are less aware of the benefits of pre-primary education and are disadvantaged by selection criteria that prioritise working parents. Access is also limited by fewer facilities in rural and remote areas and classroom space limitations in large urban areas (Open Society Institute–Sofia Foundation, 2020[59]).

Similar gaps can also be seen across different ethnic groups when it comes to learning outcomes – which may reflect and compound participation gaps. In PISA 2018, 6% of Bulgarian students reported speaking another language at home (OECD, 2019[60]). The performance gap between this group and those whose mother tongue is Bulgarian is significant. A score point difference of 74 in reading (OECD, 2019[60]) is the highest gap in the EU. Inequalities are also large and persistent among students from disadvantaged socio-economic backgrounds. Students from poorer families in Bulgaria performed much lower than their peers from wealthier families in all domains of PISA 2018 but especially in reading (106 score point difference) (Figure 1.6). This gap is not only larger than the average among OECD countries (89 score point difference) but also wider than some neighbouring countries, such as North Macedonia and Serbia (80 and 73 score point difference respectively) (OECD, 2019[51]). Indeed, it seems the country is struggling to support its most vulnerable students in the long term. For example, a greater share of students whose parents do not hold a higher education qualification achieved below Level 2 proficiency in reading in 2018 than in 2000 (when Bulgaria first participated in PISA). Such a situation is particularly worrisome for the country since there has been no significant increase in the PISA coverage number of such students (

Figure 1.7).

The current COVID-19 pandemic has only reinforced these inequalities and deepened learning losses. In Bulgaria, as in many other parts of the world, students who suffered the most from school closures and learning disruption were those from the most socio-economically vulnerable and disadvantaged families. Among the main barriers to learning was a lack of resources and a lack of parental support. In one survey, 8% of students reported that they could not participate in online classes (or at least not regularly) due to a lack of technological devices or Internet, and 50% of parents reported that they had been unable to support their children's education (Yankova, 2021[49]).

Figure 1.6. Differences in performance on PISA 2018 between student groups, by subject



Note: All score point differences are statistically significant.
Source: OECD (2019[60]), *PISA 2018 Database*, https://www.oecd.org/pisa/data/ (accessed on 26 August 2020).

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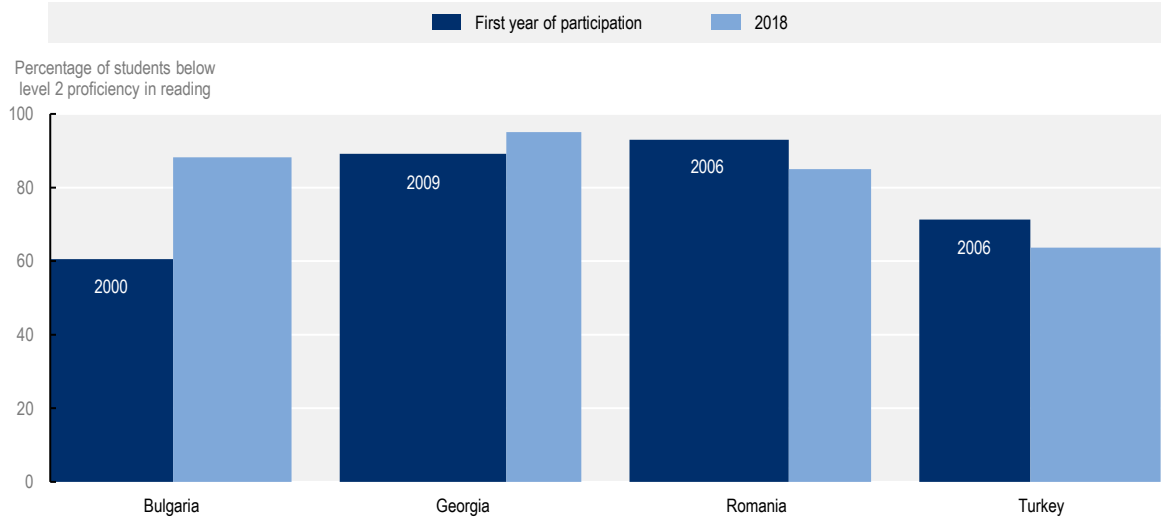
Figure 1.7. Reading proficiency among students whose parents do not hold a higher education qualification



Note: Sample is restricted to students whose parents do not hold a higher education qualification.
The width of the columns represents the number of students whose parents do not hold a higher education qualification and are scaled to be proportionate within each country.
The area of each column represents the number of students whose parents do not hold a higher education qualification who performed below Level 2 proficiency in reading.
Data from Bulgaria and Romania are from 2006 because coding for parental education was different in 2000, when they first participated.
The four countries are selected because their coverage indices in 2018 were below that of the OECD average. Baku (Azerbaijan) is excluded because it did not previously participate as a municipality.
Source: OECD/UNICEF (2021[1]), *Education in Eastern Europe and Central Asia: Findings from PISA,* https://doi.org/10.1787/ebeeb179-en.

StatLink https://stat.link/ro0k3q

Key indicators

No.	List of key indicators	Bulgaria	OECD
	Background information		
	Economy		
1	GDP per capita PPP, constant 2017 international USD (2020) (World Bank)	22 384	42 288
2	GDP annual growth rate (2020) (World Bank)	- 4.2	- 4.7
	Society		
3	Population annual growth rate (2020) (World Bank)	- 0.7	0.4
4	Population aged 14 years or less (%) (2020) (World Bank)	15	18
5	Fertility rate (births per woman) (2018) (World Bank)	1.6	1.7
6	Rural population (% of total population) (2020) (World Bank)	24	19
7	Youth unemployment rate (aged 15-24 years old) (2019) (modelled International Labour Organization [ILO] estimate, World Bank)	9	12
	Total unemployment rate (2020) (modelled ILO estimate, World Bank)	6	7
	Education indicators		
	System		
9	Official entrance age of pre-primary education (2020) (UIS)	3	3
10	Official entrance age of compulsory education (2020) (UIS)	5	5.6
11	Duration of compulsory education (years) (2020) (UIS)	11	11
	Students		

No.	List of key indicators	Bulgaria	OECD
12	Net enrolment rate, primary education (2019) (UIS)	85	99
	Net enrolment rate, lower secondary education (2019) (UIS)	85	98
	Net enrolment rate, upper secondary education (2019) (UIS)	84	93
13	Share of students enrolled in vocational programmes in upper secondary level (2019) (UIS)	52	43
14	Share of primary students enrolled in private schools, (2019) (UIS)	2	12
	Share of lower secondary students enrolled in private schools (2019) (UIS)	6	16
	Share of upper secondary students enrolled in private schools (2019) (UIS)	5	21
	Teachers		
15	Ratio of students to teaching staff, primary education (2017) (UIS)	15	15
	Ratio of students to teaching staff, lower secondary education (2017) (UIS)	13	14
	Ratio of students to teaching staff, upper secondary education (2017) (UIS)	13	13
16	Share of female teachers, pre-primary education (2018) (UIS)	100	96
	Share of female teachers, primary education (2018) (UIS)	93	82
	Share of female teachers, lower secondary education (2018) (UIS)	80	69
	Share of female teachers, upper secondary education (2018) (UIS)	77	61
	Finance		
17	Total government expenditure on education as % of GDP, all levels (2017) (UIS)	4.1	5.2
18	Government expenditure on pre-primary education as a % of GDP (2017) (UIS)	0.9	0.5
	Government expenditure on primary education as a % of GDP (2017) (UIS)	0.8	1.4
	Government expenditure on secondary education as a % of GDP (2017) (UIS)	1.5	1.8
19	Initial government funding per pre-primary student, constant PPP USD (2017) (UIS)	6458.80	8109.25
	Initial government funding per primary student, constant PPP USD (2017) (UIS)	4529.11	8964.56
	Initial government funding per lower secondary, constant PPP USD (2017) (UIS)	5463.31	10227.94
	Initial government funding per upper secondary student, constant PPP USD (2017) (UIS)	4102.41	9520.66
	Learning outcomes		
20	Mean students' performance in reading (PISA 2018)	420	487
21	Percentage of students below PISA Proficiency Level 2 in reading (PISA 2018)	47	23
22	Percentage of variance in reading performance explained by student's socio-economic background (PISA 2018)	15	12

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Notes

[1] Total number of years of schooling a child of school-entry age can expect to receive if prevailing patterns of age-specific enrolment rates stay the same throughout the child's life.

[2] Through, for instance, making the teaching profession more attractive and investing in educational infrastructure. Its specific aims include enhancing functional literacy, the development of creative and critical thinking and civic engagement.

[3] PPS is the technical term used by Eurostat for the common currency in which national accounts aggregates are expressed when adjusted for price level differences using PPPs.

[4] Average number of completed years of education of a country's population aged 25 years and older, excluding years spent repeating individual grades.

[1] Total enrolment in tertiary education regardless of age expressed as a percentage of the population in the 5-year age group immediately following upper secondary education.

[2] ISCED is the reference international classification for organising education programmes and related qualifications by levels and fields.