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# EDUCATION SECTOR ANALYSIS 2015–2020

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# SUMMARY



# ABBREVIATIONS

| Abbr. | Terms |
|---|---|
| ANER | Adjusted Net Enrolment Rate |
| AoPW | Administration of Public Works |
| AR | Access Rate |
| CEB | Council of Europe Development Bank |
| COVID | Coronavirus Disease |
| EC | European Commission |
| ECD | Early Childhood Development |
| ECE | Early Childhood Education |
| ECED | Early Childhood Educational Development |
| ECTS | European Credit Transfer and Accumulation System |
| EPR | Effective Promotion Rate |
| ESA | Education Sector Analysis |
| ESCS | Economic, Social and Cultural Status |
| ETR | Effective Transition Rate |
| EU | European Union |
| GAR | Generation Access Rate |
| GDP | Gross Domestic Product |
| GER | Gross Enrolment Rate |
| GIR | Gross Intake Rate |
| GoM | Government of Montenegro |
| GPE | Global Partnership for Education |
| HCI | Human Capital Index |
| HDI | Human Development Index |
| IDPs | Internally Displaced Persons |
| IEA | International Association for the Evaluation of Educational Achievements |
| IEC | Internal Efficiency Coefficient |
| IMF | International Monetary Fund |
| ISCED | International Standard Classification of Education |
| MEIS | Montenegrin Education Information System |
| MICS | Multiple Indicator Cluster Survey |

| | |
|---|---|
| MoE | Ministry of Education |
| MoESCS | Ministry of Education, Science, Culture and Sports |
| Monstat | Montenegro Bureau of Statistics |
| NER | Net Enrolment Rate |
| NVQ | National Vocational Qualifications |
| OECD | Organization for Economic Cooperation and Development |
| OOSC | Out-of-School Children |
| PCR | Primary Completion Rate |
| PISA | Programme for International Student Assessment |
| PPE | Pre-Primary Education |
| SDG | Sustainable Development Goal |
| SILC | Survey on Income and Living Conditions |
| SLE | School Life Expectancy |
| SR | Survival Rate |
| TIMSS | Trends in International Mathematics and Science Study |
| UCG | University of Montenegro |
| VET | Vocational Education and Training |
| WB | World Bank |





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# GLOSSARY OF TERMS

In the Education Sector Analysis (ESA) we make use of the International Standard Classification of Education (ISCED) 2011 levels of education.[1] The table below provides an overview of the equivalents in the Montenegrin school system.

| Level | ISCED 2011 | Description | Corresponding Montenegrin equivalent |
|---|---|---|---|
| 0 | Early childhood education (ECE) | Early childhood education provides learning and educational activities with a holistic approach to support children's early cognitive, physical, social and emotional development and introduce young children to organized instruction outside of the family context to develop some of the skills needed for academic readiness and to prepare them for entry into primary education. | Pre-school |
| | 0.1 Early childhood educational development (ECED) | Education designed to support early development in preparation for participation in school and society. Programmes designed for children below the age of 3. | Nursery |
| | 0.2 Pre-primary education (PPE) | Education designed to support early development in preparation for participation in school and society. Programmes designed for children from age 3 to the start of primary education. | Kindergarten |
| **1** | **Primary education** | Programmes typically designed to provide students with fundamental skills in reading, writing and mathematics and to establish a solid foundation for learning. | Primary education (ISCED 1+2) |
| **2** | **Lower-secondary education** | First stage of secondary education building on primary education, typically with a more subject-oriented curriculum. | |
| **3** | **Upper-secondary education** | Second/final stage of secondary education preparing for tertiary education and/or providing skills relevant to employment. Usually with an increased range of subject options and streams. | Secondary education (combined school) |
| | 3.1 General secondary education | Education programmes that are designed to develop learners' general knowledge, skills and competencies, as well as literacy and numeracy skills, often to prepare students for more advanced education programmes. | Gymnasium |
| | 3.2 Vocational secondary education | Education programmes that are designed for learners to acquire the knowledge, skills and competencies specific to a particular occupation, trade, or class of occupations or trades. Vocational education may have work-based components (e.g. apprenticeships, dual-system education programmes). Successful completion of such programmes leads to labour-market-relevant vocational qualifications acknowledged as occupationally oriented by the relevant national authorities and/or the labour market. | Vocational schools:<br>- two-year vocational school<br>- three-year vocational school<br>- four-year vocational school<br>- art school |

1 http://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-isced-2011-en.pdf.

## Quality, inclusive, equitable and accessible education in the function of overall social and economic progress

Despite numerous significant developments in certain segments of the education system, such as an increase in the coverage of children in preschool education, increased inclusion of children with developmental disabilities in the process of education and the degree of development and functionality of the education information system, structural reform of education in Montenegro has so far not succeeded in preventing it being centralized, which has left little room for application of the principle of meritocracy and the qualitative changes in pedagogical practices needed for acquiring knowledge and skills for the 21st century.

Over the past two years, systems in Montenegro and around the world have failed to protect those children that are from vulnerable groups from the additional negative impact of the crisis caused by COVID-19 on their education and wellbeing. The general wellbeing of students remains an issue of particular importance because this research also indicates that the measures introduced due to COVID-19 have caused various psychosocial problems among children, such as fear of illness, depression and feelings of loneliness, and we are increasingly witnessing serious peer violence.

The present analysis has shown that improvements in access to education and the successful completion of education do not correlate with students' achievements in terms of the quality of learning. The fact that international tests show that 40 per cent of students demonstrate a minimum level of competence even though they participated in the educational process, and that half of the students are functionally illiterate, which means that they are unable to reproduce the material they read, while they lag behind their peers from OECD countries by two years in reading and science subjects, is a serious wake-up call for the country to re-examine its education conditions, the skills of the teaching staff and the overall school culture. A decline in the quality of knowledge is already evident, despite the efforts of the teaching staff to do the best they can in the new circumstances. Assessment of students' knowledge has turned into negotiations, along with the continuation of the already established tradition of the overproduction of Luča diplomas, awarded to those who complete their education with excellent academic achievements in all subjects at the end of every school year.

Therefore, our shared goal is to strengthen those educational policies that lead to knowledge based on critical thinking and best pedagogical practices. Learning how to learn instead of memorizing requires high-quality and decently paid teaching staff, ready for lifelong learning and professional development. We need this kind of school and teachers not only because of persistently poor PISA test results but because every government is responsible for providing children and young people, as their "first team", with the best training and coaches.

Although COVID-19 hit the education sector unexpectedly and hard, there is still much that the system can do or could have done to compensate for the loss of learning. That is why we will try by all means to make the system more resistant to all changes in the future, and we will try to follow the recommendations based on international research and policy studies in this area. In this regard, our first goal will be the implementation of a holistic approach to education and the development of a comprehensive strategy for the education sector, which, with good planning of the measures and financial sustainability, will lay the foundation for a solid response to all the existing and future challenges in Montenegro's education system.

Miomir Vojinović, MA
Minister





## The time for re-imagining education is now

Globally, education systems are facing structural and systemic challenges, inequality, equity, infrastructure and financing. In the 21st century, education systems must respond to dramatic changes in the world of work. The reality of economic crises, conflicts and climate emergencies, coupled with the emergence of digital innovations that will impact the whole learning paradigm, calls for immediate action to reform the education sector.

In Montenegro, the pandemic and the resulting extraordinary conditions have deepened already existing structural problems, including the quality of teaching and learning, support for children from vulnerable groups, inadequate infrastructure and equipment, as well as the insufficient resilience of the system to respond to the challenges brought about by school closures. Despite the swift establishment of mechanisms for distance learning, the COVID-19 crisis revealed a lack of quality digital content, insufficient capacities of schools to use digital technologies, as well as the digital divide – one in six children in Montenegro did not have a laptop or computer at home to follow online instruction.

It is in this context that the Education Sector Analysis (ESA) was developed during 2020–2021 and this is a joint initiative of the Ministry of Education and UNICEF with a common understanding of the urgent need for comprehensive, systemic, well-coordinated and evidence-based reforms. The reform initiatives are based on solid evidence and recommendations formulated through an in-depth analysis of the education sector with the broad participation of all key actors and stakeholders, including teachers, students, parents, central educational institutions, the Parliament, the Council for Child Rights, business sectors and international organizations. The analysis was based on international methodology developed by the World Bank, UNESCO, UNICEF and the Global Partnership for Education (GPE).

The Education Sector Analysis's findings and recommendations serve as a basis for developing a comprehensive strategy which would define a clear vision of the education system and provide a roadmap of long-term, coordinated, budgeted and sustainable actions. The goal of such a strategy and roadmap of action is to make our education system and our schools of a higher quality, more relevant to our children's futures, inclusive and equitable for all; a system that will enable every child in Montenegro to achieve their full potential, as is their right and our responsibility, for their own benefit and the benefit of the whole society.

We hope you will enjoy reading this comprehensive and quality document and join us in leading the way to the comprehensive reform of Montenegro's education system for all children in Montenegro.

Juan Santander
UNICEF Montenegro Representative



# EXECUTIVE SUMMARY

This report represents a comprehensive Education Sector Analysis (ESA) of Montenegro and serves as an input for the development of a long-term evidence-based Education Sector Plan (ESP) for Montenegro to provide quality education for all. The ESA is a joint endeavour of the Ministry of Education, Sport, Culture and Science (MoESCS), UNICEF Montenegro and the ESA consultants' team led by Sofreco, who supported the analysis. The focus of the analysis is on early childhood education (ECE), and primary and secondary education.

**Education system governance**

Montenegro has committed itself to the international human rights framework and has been progressively strengthening its legal and political system and programmes in accordance with international standards. Montenegro is currently carrying out several important and multiple-sector reforms aimed at improving institutions, state services, civil rights and living standards in order to harmonize the country with the European Union (EU) framework and principles in line with the ambition of the Government of Montenegro (GoM) to join the EU. Educational policy is coordinated by the MoESCS, a new ministry established in 2020 through the merging of four different ministries after the new government was constituted in December 2020. During the period under review (2015–2020), a set of laws was passed aimed at enhancing quality and access to education, from preschool to secondary education, in line with Sustainable Development Goal 4 (SDG4) on education. In addition, a number of strategies to improve the education system were launched or updated. However, what has been missing so far is a comprehensive strategy for the education sector to include both the overall vision and the main goals and priorities of the education system as a whole. It is necessary to strengthen the capacities for quality planning, budgeting, coordination of implementation, as well as the monitoring and evaluation of policies and programmes.

Strategic planning and systematic monitoring and evaluation (M&E) are not usual practice. A lack of M&E can jeopardize further policymaking for an increased quality of education, as the measures and interventions that have been used so far are not considered to have been fully effective.

**Access to and completion of education**

Indicators show that the Montenegrin education system has made impressive improvements in terms of the accessibility of education. Students also stay longer in school with higher completion rates. Between 2015 and 2020, access to ECE in the age group 4+ grew particularly fast, as is shown by the increase in the gross enrolment rate (GER), which improved from 64.4 percent in 2015 to 76 percent in 2020. Even so, the coverage is still far below the EU benchmark of 95 percent of children above 4 years old attending ECE.[2] Also, for primary education, both access to and completion of primary school have improved and the share of pupils dropping out has decreased. The data on net enrolment shows that an increasing percentage of the student population attends appropriate classes in accordance with their age, although there is still a significant share that does not. In 2020, approximately 14 percent of new entrants to the first grade of primary school were children who were over-age when entering the first grade for

2 European Commission/EACEA/Eurydice, 2019. Key Data on Early Childhood Education and Care in Europe – 2019 Edition. Eurydice Report. Luxembourg: Publications Office of the European Union.

the first time. Even though secondary education is not compulsory, secondary education has achieved similar positive trends in terms of access and school life expectancy rates. Transition rates are high and the average school life expectancy (SLE) of secondary education improved from 3.12 years in 2015 to 3.35 years in 2020. The fact that the SLE is closing in on the expected number of years at this level of education also suggests improving completion rates. Yet, survival rates for secondary education are, to some extent, lower than for primary education. This is particularly visible in three-year secondary education. Access and completion rates for Roma and Egyptian children also increased in the observed period, but mostly in primary education (where access increased to 77 percent and completion to 56 percent), while access to preschool and access and completion of secondary education are still very low: 15–36 percent at various levels of ECE, and 3–7 percent in different classes of secondary education. Access to regular schools also increased for children with special needs, at all levels.

**Quality**

Despite the above-mentioned solid results, the good performance in terms of access to and completion of education does not correspond to the achievements of Montenegrin pupils in terms of learning outcomes. The quality of education in Montenegro is low when compared to other countries (PISA and TIMSS results) both in the fourth grade of primary school and at the first year of upper-secondary education, which calls into question the effectiveness of the investments in education in Montenegro.[3] The national tests and exams do not capture these comparisons and, hence, the results of the national assessments understandably do not elicit concerns of a similar scale. An additional serious concern is the distribution of scores: on both tests, more than 40 percent of students are below the level of the international benchmark for "low performance" – i.e. more than 40 percent of students, despite participating in education, did not reach the minimum levels of competency, while only a negligible share of students had high achievements (e.g. less than 2 percent achieved levels 5 or 6 in PISA, and "advanced" in TIMSS). In comparison, the OECD average is around 10 percent, and this share is 20 percent or more in the best-performing countries. An exception to these unfavourable results is mathematics, where both in TIMSS and in PISA, valid indications of progress are detected. Based on the analysis and interviews, there is reason to further explore three sets of problems that could restrict learning outcomes in Montenegro: (i) learning time and learning conditions; (ii) teacher skills; and (iii) school-culture-related factors. These and other issues constraining the quality of education can additionally aggravate the education outcomes of children from vulnerable groups.

**Demand and supply issues**

There are a number of demand and supply issues that are critical for understanding the performance of the education systems and the constraints that these issues may present to the development of education:

- *Demographic changes* – Overall, the school-age population is relatively in decline. At the same time, there are noticeable differences in the demographic trends between regions or municipalities. More job opportunities and better living conditions in the central and southern regions have significantly influenced internal migrations and have led to increased urbanization. The increasing demand for education in urban areas and decreasing demand in rural areas create new challenges for the existing education system that require long-term education planning in consideration of changes in the demand and supply of education.
- *Infrastructure* – Montenegro faces a serious mismatch in the demand and supply of school infrastructure, which is further intensified by the demographic changes. While both ECE school capacity and, consequently, ECE enrolment have improved considerably in the last decade, more capacity is needed for a further increase in enrolment. The situation is most severe in the central region. The highest priority is to address the concerns regarding primary education infrastructure, which is characterized by extremes at both ends of the spectrum, whereby most children in Montenegro are facing a situation in their schools where either they are in (very) small classes or classes have become so big that the school is required to organize classes in two or, occasionally, even three shifts. The number of branches (school units) operating below their maximum capacity is much larger than the number of branches that are encountering higher demand than their physical capacity. Yet, seven out of 10 children in Montenegro are in primary schools where the physical infrastructure is insufficient. For secondary education, the school capacity issue is less extreme, although also at this level there is a systematic mismatch which goes along similar lines as the mismatch in primary education. This issue is highly important as the country strives to improve access to education for all children.
- *Availability of human resources* – Data on teachers is not adequate for evidence-based planning of future teacher policies; the available data should be integrated and scrutinized, and a baseline study conducted that can answer all policy questions. Bottlenecks consist of: a comparatively low number of school psychologists available to respond to student and parents needs for counselling and advising; a slow response to population mobility from the north to the south; high student–teacher ratios in certain municipalities; and an overall aging teaching workforce that will need to be replaced in the near and medium-term future. Right now, there is not enough clarity on the structure of unemployed teachers. All these indicators need to be monitored and periodically reassessed with, hopefully, increasing detail and quality of data.
- *Quality of teaching* – Teachers' qualifications are not fully aligned with the dominant European, but also regional, requirements of a master's degree. The system of teacher education and professional development is in the process of development – some elements are well designed, but both systems still face serious challenges and need further improvement.
- *Labour market* – Even though progress has been made and there is a system of acquiring professional qualifications required by the labour market in accordance with the Law on National Professional Qualifications, various studies have pointed out that there is a skills mismatch between the education system and the labour market; this mismatch and the lack of job creation are obstacles to economic growth and competitiveness.

3 It has to be noted that the PISA is administered for 15-year-old children, therefore the results do not reflect the performance of those children who left school before (in 2018 this was almost 20% of the cohort).

### Equity

Education in Montenegro strives for equity, and the principle of equity has been incorporated into policies and the legal framework. However, there is still a long way ahead until full equity is achieved.

The most jeopardized are children from poor backgrounds, children with special needs and children from the Roma and Egyptian communities.

- Regarding learning outcomes at 15 years old, data shows that differences are substantial between quintiles of the economic, social and cultural status of families and between students enrolled in general secondary versus vocational secondary schools across all three PISA domains, i.e. reading, mathematics and science. These differences are even more concerning since the general low performance of Montenegro in PISA leaves those at the bottom of the distribution with very low chances of developing functional literacy to any acceptable level. Additionally, students from lower economic, social and cultural status (ESCS) strata are worse-off regarding the indicators of wellbeing measured through PISA. There are also positive signs of the system's efforts to compensate for some of the disparities. In Montenegro, unlike in many other PISA countries, socioeconomically disadvantaged schools, i.e. those with many low SES students, are somewhat better-off than other schools, especially regarding ICT equipment. Also, ESCS differences are not reflected in a low education aspiration of students – as happens in most OECD countries – and students' academic resilience is quite high. These are all small, but important, assets for future education developments that could be capitalized upon. Also gender differences in PISA are breaking traditional expectations, and girls are excelling in many respects.
- Trends about the education of children with SEN in mainstream schools show the effects of the inclusive education policy, although some of the children with special needs are still being educated in resource centres, and statistical indicators cannot be calculated given that the number of children with disabilities at the national level is not available.
- The most seriously jeopardized are Roma and Egyptian students living in settlements, who face multiple barriers that the integration measures implemented so far have started to ease, but have not eliminated. Despite certain improving trends, primary school completion is still a considerable challenge for these children, especially for the poorest among them, which makes enrolment in and completion of secondary education extremely rare. Therefore, inclusive education, social integration and equity in education need further support and should stay a focal area of future policymaking.

### Financing

The education sector is predominantly financed from the state budget. The other main source of funding is parental contributions and out-of-pocket expenses. The exact amount of household contributions is not known, but there are signs that educational costs, such as those for materials and opportunity costs, are still creating a financial barrier for certain groups of parents and these may hamper children's ability to access or complete education. The Government of Montenegro's (GoM's) expenditures on education have grown over the whole period 2015–2020, even when factoring in changing price levels. The relative importance of education measured as a share of GDP, however, decreased in the period 2015–2019. This means that, in relative terms, a smaller proportion of national wealth was invested in education. In 2020, the COVID-19 pandemic caused an opposite effect, with increased spending on education in a declining economy. The GoM has proved to be reliable in terms of funding the sector with a budget credibility on education-related expenditures which has been consistently high, with an average of 99.3 percent over the period 2015–2020, meaning that the MoESCS has been able to execute the budget according to plan. Montenegrin public expenditures on education are however relatively low by international standards. Even though the GoM increased the percentage of public spending on education from 7.6 percent in 2015 to 8.2 percent in 2017 it is still at the lower end of the spectrum. The share of the total capital budget spent on education has substantially decreased each year since 2016 to only 5 percent in 2020. This lean allocation is in sharp contrast with the pressing school infrastructure situation affecting the majority of children in schools at the ECE, primary and secondary levels. Around 90 percent of the MoESCS's programme spending on education goes towards recurrent spending. The share of education expenditures spent on wage costs has increased during 2015–2020, resulting in relatively lower spending on other recurrent costs, such as materials. There is a general consensus among interviewees consulted during the process of development of this Analysis that an increase in remuneration is necessary in order to maintain qualified staff and it is also considered justifiable as wages are generally not seen as being in conformity with the market. Yet, the increasing wage bill poses a risk for sustainability, because this is currently insufficiently compensated for with an overall higher budget allocation to the sector. In a broader perspective, the question on the efficiency and effectiveness of education spending remains relevant.

### Impact of COVID-19

In March 2020, the worldwide COVID-19 pandemic also began affecting Montenegro. The pandemic has affected almost the entire population, but mostly the less educated, the unemployed and other vulnerable groups. With regard to the education sector, the COVID-19 pandemic has created severe disruptions in different areas affecting quality, equity and financing:

- *Quality* – The closure of schools combined with the unpreparedness for emergency distance education is expected to have major repercussions on learning achievement. Concern regarding the learning loss needs to be supplemented by concerns regarding wellbeing. Research into student wellbeing during the COVID-19 lockdowns detected diverse concerns of children, such as fears of getting sick, depression and loneliness.
- *Equity* – School closures affected all children, but in particular those from vulnerable groups, which underlines the importance of resilience of the education sector in times like these. The school closures and switching to online education disproportionally affected children from vulnerable groups in multiple ways, further increasing their risk of exclusion. Unequal access to technological infrastructure is the first and most visible adverse factor affecting children from vulnerable groups, especially Roma and Egyptians, as well as children from families from a poor background.
- *Financing* – The COVID-19 crisis is also having a financial impact and Montenegro was hard hit with a GDP decline of –15.3 percent in 2020. The crisis caused a GoM budget revision in 2020 that also impacted the education sector. The budget cuts were disproportionally concentrated on specific budget lines related to services and materials, thereby having a huge impact on certain items and activities, such as teacher training and school materials. Also, in 2021, the financial impact of COVID-19 was felt in the education sector, leaving very little room for manoeuvre in the short run. For 2022, the possibilities will depend on the speed of economic recovery, the ability to restore and improve the GoM's tax revenue generation, as well as the potential of any additional sources of external funding.

**Recommendations**

While the ESA has identified substantial improvements in various areas of the education sector in the period 2015–2020, some progress in performance might be (temporarily) set back due to the impact of COVID-19. The analysis further identified that, even before COVID-19, the education system had been facing some serious weaknesses. These weaknesses require the GoM to devote its attention and allocate sufficient finances to them, while working towards the recovery and further strengthening of the education system. The current financial situation imposes the need to ensure that scarce resources are used efficiently and effectively. It is therefore recommended to:

1. **Strengthen the strategic planning function** within the MoESCS and work towards an integral Education Sector Plan (ESP) covering all levels of education. The ESP must contain clear and realistic targets based on evidence. As part of developing the ESP, it is recommended to collect more in-depth evidence on the actual need for infrastructure and human resources:
    a. **Carry out a mapping of the existing school infrastructure** and its utilization, and compare it with projected student numbers to identify the most urgent bottlenecks regarding accessibility and identify potential efficiency gains in resource utilization.
    b. **Improve the national HR database** for education and determine the need for future teachers and other school professionals by level, subject, region, etc. by using student projection models for future HR planning.

The outcomes of these two assessments are essential inputs for effective strategic planning. In addition, it is recommended that the ESP contain a roadmap that will encourage:

2. **Further improvement of equity and enrolment at all levels**, in particular by the following measures:
    a. Continuing the increase in coverage with ECE in an accessible and affordable way to all children.
    b. Continuing and intensifying awareness-raising campaigns on the importance of early education and specifically targeting parents, to promote starting primary education at the right age.
    c. Including a vision and timeline to make secondary education compulsory. Together with better connection with labour market demands, compulsory secondary education can improve the new generation's employability.
    d. Exploring and scaling up alternative social-financial support measures, such as stipends and student loans, to ensure compensation for the loss of family income incurred if a child continues schooling.
    e. Review the Roma and Egyptian integration mechanisms used so to ascertain whether they have reached children in settlements, and adopt more effective, sustained and predictable measures to support students from vulnerable groups.
    f. Further efforts should be invested into increasing the number of children with SEN being enrolled in mainstream schools at all levels of education, through improving the infrastructure and capacities of school staff to provide quality support.





3. **A further improvement of the quality of education, including through the following measures:**
    a. Reviewing the curriculum, overseeing implementation in class, use of constructivist teaching methods and ensuring that teacher autonomy is used in order to create a motivating and enriching learning situation for all students.
    b. The quality of teaching should be improved to ensure an individualized approach tailored to the needs of every child, particularly those at risk of lagging behind and children from vulnerable groups.
    c. Smart integration of digital tools and technologies in education and harnessing their potential for improving the quality, relevance, inclusiveness and resilience of the education system.
    d. Introducing, supporting and monitoring implementation of formative assessment at all levels and in all subjects.
    e. Monitoring student wellbeing and provision of quality prevention and support programmes, e.g. social and emotional learning, and mental health.
4. **Strengthened and harmonized pre-service and in-service teacher training.** The reform of initial teacher education needs to be sped up and focused on establishing powerful learning environments for prospective teachers through:
    a. increasing the proportion of their professional studies (psychological, pedagogical and methodological disciplines) and their practical studies through school placement;
    b. increasing the relevance of their studies for contemporary teaching practice;
    c. ensuring effective school practice as part of initial teacher education; and
    d. improving professional development of teachers by making professional development courses more relevant, coupled with monitoring of their effectiveness; in addition, school-based professional development opportunities need to be strengthened.
5. **A better enabling environment,** by:
    a. examining the adequacy of the number of school days and contact hours and moving to single-shift schooling wherever possible;
    b. targeted investments in ICT infrastructure and science laboratories, and development of digital competencies;
    c. improving the school culture by creating more opportunities for the meaningful engagement of students, supporting the development of a mindset of students' growth, and cooperation; and
    d. increased involvement of parents in school-level decision making and their role in advising education policy.

As part of the process, it is further recommended to:

6. **Build the sector's capacity to improve the monitoring and evaluation function, and data utilization** in a systematic way and at different age levels in order to guide evidence-based policymaking regarding the quality and equity of education.

7. Take the **resilience of the sector** into account as part of strategic planning, including through development of a quality and inclusive system for distance education, online teaching, learning and collaboration.
8. **Ensure sufficient resources and cost-effective spending.**

All of the above recommendations will have their costs, while it is well understood that, at this point in time, there is limited fiscal space to manoeuvre. It is recommended that:

- **The ESP is fully costed with different scenarios of ambition depending on the speed of the economic recovery.**
- **Review the adequacy and equity of the current level of allocations** to the education sector and within the sector. The state of the current allocations to the education sector – which are low according to international comparisons – are a sensible argument for considering an increase in the GoM's allocations to the education sector to help boost the implementation of the ESP. Potential external funding could complement the implementation of (specific parts of) the ESP.
- **Identify and address any inefficiencies in the system.** An analysis of education finance, including a public expenditure review, can help answer questions about whether public resources are being used efficiently and effectively, relative to the government's policies and standards.



# INTRODUCTION

**This report represents a comprehensive Education Sector Analysis (ESA) in Montenegro and serves as an input for the future development of a long-term, evidence-based Education Sector Plan for Montenegro to provide quality education for all.** The ESA target audience includes both the GoM and other stakeholders working in or connected with the education sector. It aims to strengthen the knowledge base and to support the GoM and other relevant stakeholders in policymaking and advocacy for generating greater effectiveness of the education system through stimulating policy debate, suggesting recommendations to improve the effectiveness of the education system and by identifying neglected areas that deserve further analysis.

**The ESA focuses on early childhood education, primary education and secondary education.** The study contains a comprehensive assessment of the education sector, drawing on a wide range of available secondary data, previous studies and research papers, as well as on new evidence collected through stakeholder interviews and a job satisfaction survey. The focus is on quantitative data covering the period 2015–2020, which is the last full reporting year for which data is available. Tertiary and private education falls outside the scope of the assessment.

**The ESA is aligned with the Education Sector Analysis Methodological Guidelines, developed by UNESCO, the World Bank (WB), UNICEF and the Global Partnership for Education (GPE) in 2014.**[4] In Chapter 1, the ESA firstly explores the demographic, socioeconomic, and macroeconomic contexts of the education sector in Montenegro. Chapter 2 looks at enrolment and the internal efficiency of the education system. Chapter 3 provides an assessment of the quality of education and the management of the system. Equity issues are analysed in more detail in Chapter 4. Chapter 5 assesses the financing of the education system and Chapter 6 looks at the impact of COVID-19 on the education system. The last chapter, Chapter 7 summarizes the key findings and provides policy recommendations. Annex 1 provides a summary of the approach and methodology of the ESA. Annex 2 summarizes all the key indicators presented in the report.

**The ESA was conducted during the COVID-19 worldwide pandemic. The restructuring of the Ministry of Education (MoE) into the Ministry of Education, Science, Culture and Sports (MoESCS) after a change in the government in late 2020**[5] **further affected the timeline and methodology.** The ESA team adopted a flexible approach in gathering data and organizing remote interviews and capacity-building activities. The present ESA clearly states where the team faced serious data limitations, and the findings in this regard have been integrated as part of the recommendations.

**The ESA is a joint endeavour of the MoESCS, UNICEF and the ESA consultants team led by Sofreco who developed the analysis.** The ESA team – consisting of Miriam Visser (team leader and education economist), Tinde Kovács Cerović (education specialist) and Laetitia Lakrouf (project manager) – is grateful for the support from all stakeholders who participated in

4 Education Sector Analysis, Methodological Guidelines, UNESCO, The World Bank, UNICEF and the GPE, September 2014. Please note that the ESA team took the liberty of ordering the report slightly differently to better fit the local context. The dimension of External Efficiency has been limited to an analysis of the labour market, which is presented in Chapter 1. The ESA added an extra chapter on the impact of COVID-19.

5 The ESA will use the new name of the Ministry of Education throughout the report. When the Ministry of Education, Science, Culture and Sports is referred to, it is specifically referring to the Department of Education. The areas of science, culture and sport are not part of the scope of work.

the realization of the ESA. A list of those who were interviewed and consulted throughout the process can be found in Annex 2. Our special thanks go out to Marko Vukasinovic, Marina Matijevic and Maja Kovacevic, Ivana Cekovic and Zeljka Popovic, the ESA counterparts at the MoESCS and the UNICEF Country Office Montenegro respectively, who supported the development of the ESA throughout. We also like to thank all MoESCS and UNICEF staff who provided data, valuable comments and recommendations on earlier drafts. Special thanks also goes to Saša Milić from the University of Montenegro, and Aleksandar Baucal from the University of Belgrade, for their contribution to the development of ESA.



# 1 Context of development of the education sector

On 3 June 2006, Montenegro regained its independence. The country adopted a new constitution, along with a Law on the Constitution, which came into force in 2007. The country committed itself to the international human rights framework and has been progressively strengthening its legal and political system and programmes in accordance with international standards. In Montenegro there are several important and multi-sector reforms currently ongoing, aimed at improving institutions, state services, civil rights and living standards in order to harmonize with the European Union (EU) framework and principles, in line with the ambition of the Government of Montenegro (GoM) to join the EU. Education is considered an important driver of socioeconomic development that can contribute to the stability of the political and economic system.

This chapter provides Montenegro's demographic, socio-cultural and macroeconomic context. This context is critical for understanding the performance of the education systems and the quality of education services, and clarifies the constraints they may provide to the development of education.

## 1.1 The demographic, social-economic and macro-economic context

### 1.1.1 Demographic trends

**Montenegro is a country on the Adriatic coast of the Balkans with an estimated population of 621,873 inhabitants (2020).** Over the last 20 years, the total population has grown only modestly from 603,152 in 2000 with an average annual growth rate of 0.15 percent.[6]

While the total population remained fairly stable, the composition of the population has relatively aged. In the last two decades the population has become older with a rise in the life expectancy for males from 71.1 to 74.0 years, and for females from 76.3 to 79.5 years. During this time, fertility rates (the number of live births per 1,000 women of reproductive age) have fluctuated between 1.6 and 1.9. About 7,100 children were born in 2020, which was the lowest number of newborns in the past 10 years. This indicates a trend of a slight decrease in the number of newborn children in Montenegro.[7] In effect, the number of children (0–18 years old) as a share of the total population has fallen to 23 percent in 2020 compared to 27 percent in 2000, as shown in Figure 1.1a and Figure 1.1b.

6 Monstat, population estimations 2000–2020.

7 Monstat, Statistics on Newborn Children, https://www.monstat.org/userfiles/file/demografija/procjene%20stanovnistva/2019/zivorodjeni%20%20podaci%20rs.xls.

*Figure 1.1a Montenegro population pyramid by age group and gender, 2021*

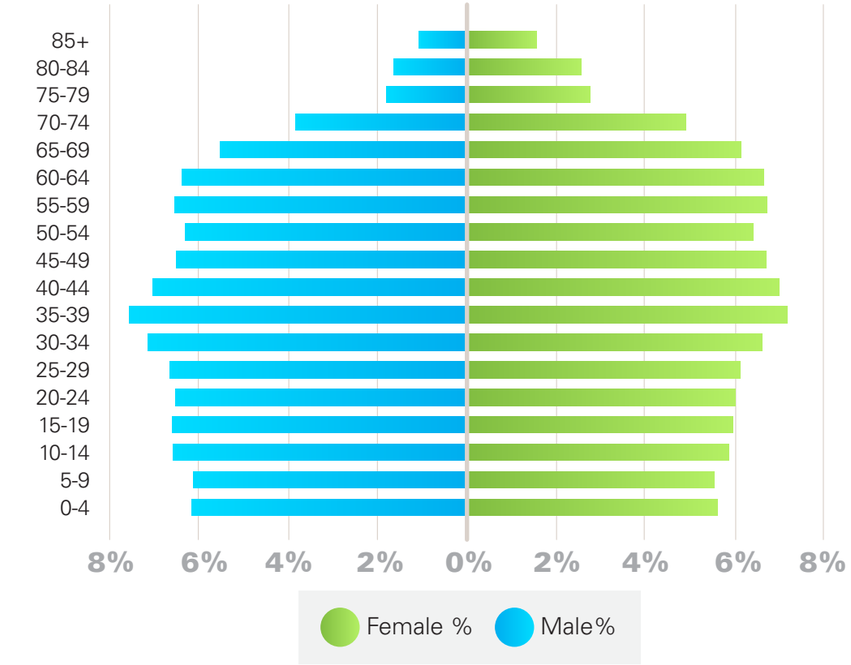
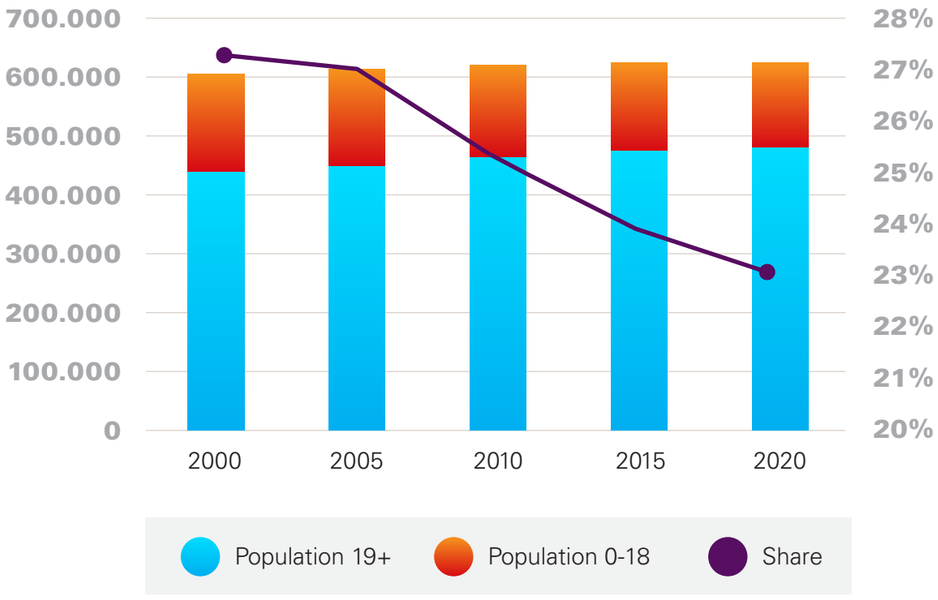



*Figure 1.1b Population growth 2000–2020 including the share of children below 18*




*Source: Monstat*






**The net migration effect on the overall population has been minor, with slightly more emigrants than immigrants in the period 2015–2019.** The net migration rate was –0.8/1,000, equivalent to about 2,400 net emigrations over this period.[8] During this period, Montenegro was also affected by the refugee crisis, but there are no reliable statistics on any lasting impact. Although exact numbers are missing, many refugees have passed through Montenegro since the start of the refugee crisis in 2015 as a transit route via Greece and Albania to other places in Europe. The impact of the refugee crisis that began in 2015 has been nowhere as profound on Montenegro as the refugee crisis that the country experienced during the war in Kosovo*,[9] when there was a large influx of refugees fleeing from the neighbouring country at the end of the twentieth century. The 1999 refugee crisis is still relevant today when studying the education sector because there are still internally displaced persons (IDPs), e.g. Roma families and children living in Montenegro who have specific problems integrating into society and completing education (see Chapter 4).

**Overall, this means that the school-age population is relatively in decline.** The estimated population for the period 2000–2020 for the statistical age group (5–19 years) that corresponds most closely to the school-age population (4–18 years) is shown in Table 1.1.

For each age group there has been an absolute decline. Furthermore, it has been observed that there is a consistent surplus of men in the gender balance.

*Table 1.1 School-age population, 2000–2020*

| Year | 5–9 | | 10–14 | | 15–19 | | Total 5–19 | |
|---|---|---|---|---|---|---|---|---|
| | Total | % girls | Total | % girls | Total | % girls | Total | % girls |
| *2000* | 42,323 | 48.4% | 44,944 | 48.3% | 47,306 | 48.5% | 134,573 | 48.4% |
| *2005* | 42,217 | 48.4% | 45,284 | 48.3% | 48,047 | 48.7% | 135,548 | 48.5% |
| *2010* | 39,580 | 48.4% | 42,516 | 48.4% | 44,347 | 48.3% | 126,443 | 48.4% |
| *2015* | 37,829 | 47.5% | 39,828 | 48.2% | 42,303 | 48.4% | 119,960 | 48.0% |
| *2020* | 36,753 | 48.1% | 37,953 | 47.5% | 39,768 | 48.2% | 114,474 | 47.9% |

*Source: Monstat*

**There are noticeable differences in the demographic trends between regions or municipalities**. More job opportunities and better living conditions in the central and southern regions have significantly influenced internal migrations, and this has led to increased urbanization. The decline in population is mostly concentrated in the northern region. According to Monstat, the internal migration rate in 2020 was 0.8 percent, which means that per 10,000 inhabitants eight people changed their place of residence within the borders of Montenegro. In absolute numbers, this involved 4,941 inhabitants. The municipalities that had the largest number of new inhabitants due to migration were the capital Podgorica in the central region and the municipalities of Budva, Tivat, Kotor and Bar in the southern region.

8 IOM, https://migrationdataportal.org/?i=netmigrate&t=2020&cm49=499.

9 References to Kosovo shall be understood to be in the context of Security Council Resolution 1244 (1999).

**Urbanization is putting additional pressure on the education system in urban areas**. The urbanization rate in Montenegro grew relatively fast – from 58.5 percent in 2000 to 67.5 percent in 2020[10] – and Podgorica now houses 30.6 percent of the total population.[11] The percentage of people living in an urban setting is also an important context indicator because the increasing demand for education in urban areas and decreasing demand in rural areas create new challenges to the existing education system and infrastructure (see Chapter 2).

***Table 1.2 Population by region, 2011 and 2020***

| Region | Population | Surface area (km²) | Population density | Population % | Territory % |
|---|---|---|---|---|---|
| Northern | | | | | |
| 2011 | 177,837 | 7,304 | 24.3 | 28.7% | 52.9% |
| 2020 | 161,310 | | 22.1 | 26.0% | |
| Central | | | | | |
| 2011 | 293,509 | 4,917 | 59.7 | 47.3% | 35.6% |
| 2020 | 304,946 | | 62.0 | 49.1% | |
| Southern | | | | | |
| 2011 | 148,683 | 1,591 | 93.4 | 24.0% | 11.5% |
| 2020 | 155,050 | | 97.5 | 25.0% | |

*Source: Monstat, 2011 Census and population estimates per municipality in mid-2020*

**Data suggests that the population decline is occurring faster than anticipated.** In 2008, a population projection study worked out various scenarios based on different fertility, mortality and migration estimations.[12] The actual estimated population in 2020 is now below what was estimated at the time (using the most conservative scenario presented in this study, which was based on the status quo of the fertility, mortality and migration ratios during the period when the study was conducted). This indicates that the population decline is occurring faster than was projected in 2008. Due to the higher life expectancy of women, the gender balance is slowly changing among the different age groups, with more elderly females than males. Overall, this is resulting in a small surplus of women in the total population.

***Table 1.3 Estimated population for 2020–2050***

| | 5–9 | | 10–14 | | 15–19 | | Total population | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | % girls | Total | % girls | Total | % girls | Total | % women | % school-age |
| Current population estimate | | | | | | | | | |
| 2020 | 36,753 | 48.1% | 37,953 | 47.5% | 39,768 | 48.2% | 621,873 | 50.5% | 18.4% |
| Population estimates according to projection study of 2008 (scenario 6, status quo) | | | | | | | | | |
| 2020 | 37,212 | 47.8% | 37,406 | 47.9% | 41,451 | 48.2% | 637,957 | 51.0% | 18.2% |
| 2050 | 26,528 | 47.9% | 27,781 | 47.9% | 29,584 | 48.0% | 542,042 | 51.4% | 15.5% |

*Source: Monstat*

The population projections further show a decline in the school-age population from 18.2 percent to 15.5 percent over the coming decades.

**If these demographic trends continue, they will have a direct impact on the education system, the labour market and the economy as a whole.** It will require further adjusted strategies and investments to safeguard the national living standards.

10 UNDP Human Development Indicators 2019, http://hdr.undp.org/en/indicators/4510667.

11 Monstat, Population estimates per municipality in mid-2020.

12 Monstat, Demografski trendovi u Crnoj Gori od sredine 20. vijeka i perspektive do 2050. godine, Podgorica, December 2008.





## 1.1.2 Socioeconomic indicators

**The overall trend in human development has been positive since the country's restoration of independence in 2006 until 2019, albeit still with a large vulnerable group with a high risk of falling into poverty. In 2020, the COVID-19 pandemic increased the poverty-related risks and caused a negative trend change in development, the full effect and duration of which is yet unknown (see also Chapter 6).**

In 2015, the United Nations Human Development Index (HDI) for Montenegro stood at 0.753 and has been growing steadily up to 0.829 in 2019 (the most recent available figure), which ranks the country among highly developed countries.[13] This means that the conditions for human development in Montenegro are favourable.

The literacy rate amongst adults (>15 years) slightly improved from 98.4 percent in 2011 to 98.8 percent in 2018 (the most recent available figure).[14] Infant mortality dropped impressively from 11.0 per 1,000 births in 2000 to 2.8 in 2020, although it has been rising again, when compared to the all-time low in 2017 at 1.3 per 1,000 births. The under-5s mortality rate shows a similar positive trend, going down from 12.5 in 2000 to 3.7 in 2020, but rising again from the all-time low of 2.7 in 2017.[15]

**There is a large discrepancy between the average per capita income of the richest and the poorest sections of the population.** The richest 20 percent of Montenegro's population earns about 39.9 percent of the country's total income, while the poorest 20 percent earns 5.9 percent.[16] The Gini index, which measures inequity in access to resources, services and opportunities,[17] has improved from 36.5 percent in 2015 to 34.1 percent in 2019, but Montenegro still faces higher inequalities when compared with the average for the EU-27, which stands at 30.2 percent. Also neighbouring countries, such as Serbia (33.3%) and Croatia (29.2%), show lower inequalities.[18]

A significant number of children aged 0–17 (around 38.4 percent) were at risk of poverty in 2019, while the EU average stood at around 25 percent.[19] Data from the Survey on Income and Living Conditions (SILC) show that the risk of child poverty is very much related to the parents' level of education. About 84.5 percent of children whose parents had completed primary education or lower were at risk of poverty, while this was the case with only 12.4 percent of children whose parents had completed higher education.

According to the 2018 Multiple Indicator Cluster Survey (MICS) findings,[20] 90 percent of children aged 3–4 years are on-track when it comes to the development for their age. The MICS data also indicates that, among children aged 2–17 years, about 6 percent have developmental delays in at least one domain (physical, socio-emotional, cognitive or early learning). The most substantial differences stem from the socioeconomic status of the family (76 percent of the

13 UNDP Human Development Report 2020.

14 https://data.worldbank.org/indicator/SE.ADT.LITR.ZS?view=map&year=2018.

15 Monstat, Main demographic indicators 1961–2020.

16 Survey on Income and Living Conditions (EU-SILC), 2019 data (version 23 April 2021)

17 A Gini coefficient of 0% expresses perfect equality (everyone has the same income) and a Gini coefficient 100% expresses maximum inequality (one person has all the income and all others have none).

18 EuroStat data, https://ec.europa.eu/eurostat/databrowser/view/tessi190/default/table?lang=en.

19 [16] Survey on Income and Living Conditions (EU-SILC), 2019.

20 MICS 2018, https://www.unicef.org/montenegro/statisticki-pregled-mics-2018.

children from the lowest wealth quintile develop as expected, compared to 92 percent of the children from families in the highest wealth quintile.

Other findings from this survey indicate that about 7 percent of children under the age of 5 are overweight, while about 4 percent of children are malnourished. About 12 percent of children aged 5–17 years are involved in child labour. This is critical in terms of education and learning, as it prevents them from receiving schooling.

Child marriage also often results in school drop-out. For the general population the rate of child marriage in Montenegro is low – namely it affects around 0.5 percent of the total population. However, the percentage is significant within the Roma and Egyptian communities, in which, according to the MICS 2018, 32.5 percent of women and 15.8 percent of men aged 15–19 are married or in a union. For the general population, the figure stands at 1.1 percent for women and 0.0 percent for men from this age group. When compared with MICS 2013, there is a decline in early marriage for both males and females in the general population. For Roma settlements, there is also a decline amongst men in this age group from 16.5 percent to 15.8 percent, while the share of Roma women from that age group married or living in a union increased from 28.1 percent to 32.5 percent. The high incidence of child marriage in the Roma and Egyptian population is accompanied by a high level of acceptance of domestic violence (as reported in the MICS 2013).

The 2018 MICS data was used to analyse multidimensional child poverty, applying the Multiple Overlapping Deprivation Analysis. The study found that more than 80 percent of children experience deprivations in at least one domain of their wellbeing, regardless of the age group; the percentage is even higher (96%) for Roma children.[21] The child-related domains of wellbeing were defined as: health; nutrition; early child development (ECD) and education; neglect and discipline (child protection); and child labour (domestic chores and other work performed). For children in the general population aged 0–23 months, the greatest deprivation is nutrition. Deprivation of protection (exposure to violent discipline or neglect) ranks highest for children in the age groups 0–5 and 5–17. Deprivation in the domains of education, water and sanitation, utilities and information is generally high among children living in rural areas. Deprivations in health and child protection are more prevalent in urban than rural areas.

**Socioeconomic impact of COVID-19**

**The pandemic is having a severe socioeconomic impact, affecting almost the entire population, but mostly the poorly educated, unemployed and other vulnerable groups.** A UN rapid assessment of the impact of the pandemic, conducted in Montenegro in June 2020 and repeated in September 2021, indicated various negative effects – about 50 percent of the survey participants experienced a drop in income. A total of 18 percent had their salary reduced, primarily in the southern part of Montenegro, while 14 percent reported the loss of their jobs, of which a substantial share is accounted for by persons with only primary or lower levels of education.[22] The same study also concluded that close to half of those who incurred schooling costs for secondary school and university students were unable to meet such expenses over the previous six months. In addition, 63 percent of those who incurred treatment costs in private medical establishments due to limited access to public healthcare on account of the COVID-19 pandemic were unable to cover these costs. Finally, 68 percent of those who rent their dwelling were unable to afford the cost of rent. Some social groups are particularly affected, such as: families with reduced incomes, Roma families, children and people with disabilities, the elderly, children in foster families, single-parent households and households in which the parent(s) has a history of psychoactive substance use.

21 Carraro A., Gavrilovic M., Novkovic M., Stanisic S., & Smolovic D., (2020). Multidimensional Child Poverty in Montenegro – Understanding the complex realities of children in poverty using a mixed-method approach, UNICEF Office of Research – Innocenti and UNICEF Montenegro.

22 UN Montenegro, Report on the Rapid Social Impact Assessment of the COVID-19 outbreak in Montenegro, April–June 2020 and September 2021.





According to initial World Bank estimates,[23] the pandemic could contribute to an increase in the national poverty rate in Montenegro of 1.5–3 percent, depending on its duration. This would reverse the effects of 4–6 years of poverty-reduction measures. The RSIA 2021, however, also signalled some economic recovery compared with the survey findings from a year earlier.

**Also, with regard to the education sector, the COVID-19 pandemic has created severe disruptions and affected all children, but in particular those from vulnerable groups.** The COVID-19 pandemic posed as a test for the existing education management system. The education system has managed to reorganize itself very quickly in order to contribute to the efforts invested in preventing the spread of the infection, closing educational institutions, but at the same time ensuring continuity in the education of children through a rapid transition to distance learning.[24] However, access to education has been seriously affected, in particular for children and adolescents who do not have access to online education and the longer-term implications on learning outcomes are not yet known (see also Chapter 6).

**The World Bank Human Capital Development Report estimates that the human capital index (HCI) may drop by at least 1 point due to COVID-19.** The HCI measures the human capital that a child born today can expect to attain by their eighteenth birthday, given the risks of poor health and poor education prevailing in their country. The index incorporates measures of different dimensions of human capital: health (child survival, stunting and adult survival rates) and the quantity and quality of schooling (expected years of schooling and international test scores). Pre-COVID figures show that a child born in Montenegro today will be 63 percent as productive when they grow up as they could be if they enjoyed complete education and full health. This is lower than the average for Europe & Central Asia region but higher than the average for upper-middle-income countries.

### 1.1.3 Macro-economic performance 2010–2020

**For almost a decade, Montenegro experienced economic growth, but growth started to slow down in 2019 and turned negative in 2020.** Montenegro's strategic development goal defined in the Economic Reform Programme 2020–2022 is" sustainable and inclusive economic growth that will contribute to a reduction in the development gap between Montenegro and the EU average, and to the improvement of the quality of life of all its citizens."[25] Statistics demonstrate that Montenegro's economy showed continuous growth in the period 2010–2019, with the exception of 2012. Large infrastructure projects (including a new highway)

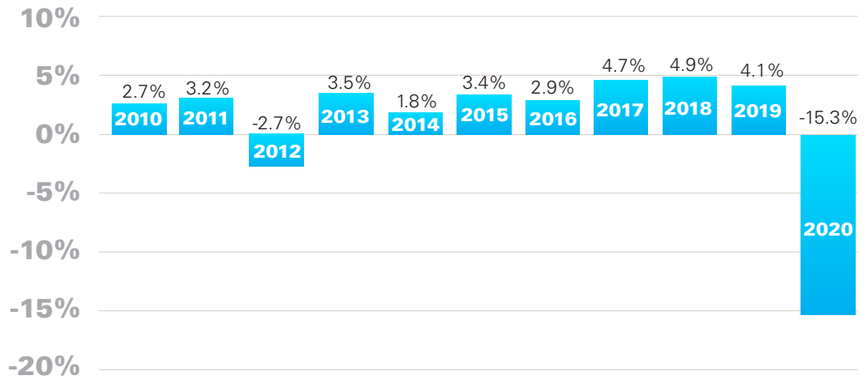
23 World Bank. 2020. The Economic and Social Impact of COVID-19 : Poverty and Household Welfare. Western Balkans Regular Economic Report; no. 17. Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/236311590680555002/The-Economic-and-Social-Impact-of-COVID-19-Poverty-and-Household-Welfare.

24 World Bank. 2020. The Economic and Social Impact of COVID-19 : Education. Western Balkans Regular Economic Report; no. 17. Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/932621590693246041/The-Economic-and-Social-Impact-of-COVID-19-Education.

25 Government of Montenegro, Economic Reform Programme for Montenegro 2020–2022.

and the tourist sector have been important contributors to gross domestic product (GDP) growth. Nonetheless, even before the outbreak of COVID-19, there were some signs of economic slowdown. In 2019, GDP growth decreased to 4.1 percent. After COVID-19 broke out, GDP fell rapidly, and figures for 2020 show an extraordinary decline of more than 15 percent. According to Monstat, the gross domestic product per capita in 2020 was €6,737, while in 2019 it was €7,959.

***Figure 1.2 Real GDP growth in %, 2010–2020***




*Source: Monstat (2010–2020)*

**Strong economic growth up until 2019 also supported better labour market outcomes.** The unemployment rate fell gradually from 17.7 percent in 2015 to 15.1 percent in 2019. Yet, several research studies have determined that the labour market is still characterized by a high rate of inactive labour, a low employment rate, long-term unemployment, a structural mismatch between demand and supply and a high unemployment rate, particularly among the young (see Section 1.2 for further details).

**At the same time, the debt position has already worsened rapidly.** While the implementation of large publicly-financed infrastructure projects has added economic growth, the accompanying use of fiscal resources has contributed to a large increase in government debt. Government debt as a percentage of GDP rose from an average of 53.4 percent in the period 2010–2015 to 70.8 percent in 2018[26] to 76.5 percent in 2019.[27] In 2020, the temporary spike in government expenditures to address the fallout of the pandemic and the loss in tourism revenue further strained public finances, resulting in a deteriorated debt position, reaching 105.1 percent of the 2020 GDP figures.[28]

In its 2019 country report, the International Monetary Fund (IMF) stressed the importance of continued fiscal adjustment, further efforts to strengthen banking sector supervision, and fiscal and structural reforms to support inclusive growth over the medium term.[29] With a narrow domestic production base and high import dependence for investment and consumption of goods, spending must be carefully prioritized to cover the most urgent needs, so as not to jeopardize debt sustainability. A similar remark was made in the 2019 European Commission (EC) Annual Report on Montenegro,[30] stressing the importance of maintaining macroeconomic stability, noting that the rapidly rising public debt and high fiscal deficits, together with high external imbalances and high unemployment, are of particular concern. While the temporary increase in government spending due to COVID-19 was necessary, a return to careful fiscal management when the economy recovers is essential in order to lower public debt to safer levels. See Chapter 6 for more information about the impact of COVID-19 on the economic outlook.

**Montenegro was hit exceptionally hard by the COVID-19 pandemic when compared with other countries in Europe and Central Asia, with preliminary GDP data showing a decline of 15.3 percent in 2020.** The financial impact of COVID-19 will be felt possibly even beyond 2021. The debt rate is expected to reach 98.5 percent of GDP in 2021.[31] The timescale of the recovery will depend on the ability to stop the spread of the virus and restore economic growth.

**The figures show an uneven regional impact. Being heavily dependent on the services and tourist sector, Montenegro was one of the economies hardest hit by the pandemic in Europe.** After worldwide travel restrictions, tourism in Montenegro fell by 80 percent in 2020. Based on preliminary figures, Montenegro experienced a decline in economic activity of 15.2 in 2020. This result represents the highest economic downturn in the Western Balkans, followed by Kosovo (–8.0%) and Croatia (–6.9%). According to the latest available World Bank estimate of June 2021, economic activity in the region of Europe and Central Asia, as a whole, contracted 2.1 percent in 2020 in the wake of disruptions related to the COVID-19 pandemic. The decline in economic activity was smaller than initially expected. Targeted fiscal support, such as wage subsidies and cash transfers, is estimated to have helped avert a larger spike in poverty and job losses. As countries gradually withdraw support measures, however, job losses could increase again.

***Table 1.4 Projections of GDP growth rate in the Western Balkans and Eurozone***

| | 2018 | 2019 | 2020 expected | 2021 forecast | 2022 forecast |
|---|---|---|---|---|---|
| **Country** | | | | | |
| Montenegro | 5.1 | 4.1 | –15.2 | 7.1 | 4.5 |
| Kosovo | 3.8 | 4.9 | –6.9 | 4.0 | 4.5 |
| Croatia | 2.8 | 2.9 | –8.0 | 5.5 | 6.2 |
| Albania | 4.1 | 2.2 | –3.3 | 4.4 | 3.7 |
| Bosnia & Herzegovina | 3.7 | 2.8 | –4.3 | 2.8 | 3.5 |
| **Region** | | | | | |
| Western Balkans | 4.0 | 3.6 | –3.4 | 4.4 | 3.7 |
| Eurozone | 1.9 | 1.3 | –6.6 | 4.2 | 4.4 |

*Source: World Bank Global Economic Prospects, June 2021*

26 European Commission Montenegro 2019 report.

27 MoF, Report on the general government debt of Montenegro as of 31 December 2020.

28 MoF, Report on the general government debt of Montenegro as of 31 December 2020, https://www.gov.me/en/article/report-on-the-general-government-debt-of-montenegro.

29 IMF 2019 Article IV consultation, country report No. 19/293.

30 Montenegro started negotiations with the EU in June 2012 and is striving to join by 2025, ahead of the other countries in the Western Balkans. Of the 35 negotiations chapters, two have been provisionally closed and 22 have been opened.

31 World Bank Global Economic Prospects, January 2021 (The cut-off date for the data used in this report was 18 December 2020) and https://betabriefing.com/see-business/montenegro/12577-montenegros-public-debt-may-rise-to-98-of-gdp-wb-forecasts.



EDUCATION SECTOR ANALYSIS 2015–2020

**At the time of writing there are still high uncertainties about the economic recovery period. It is projected that Montenegro will experience a GDP growth of around 4.5 percent in 2021. This is a more robust rebound than in the other countries in the Western Balkan other countries,[32] but the decline has also been severely steeper.** Growth in the Western Balkans region, as a whole, is expected to rebound to 4.4 percent in 2021, assuming that consumer and business confidence are restored as COVID-19 is brought under control and that political instability eases. The time needed to control the virus will, however, directly impact the economic recovery period. The longer the health crisis and related restrictions last, the deeper the economic recession will be.

## 1.2 The labour market and the relation with education

**In Montenegro, the active workforce makes up 43.1 percent of the total population – this includes both the employed and the unemployed looking for a job from the age of 15.** The vast majority of the employed population is employed in services. Out of the total population working in services, the largest categories are those working in wholesale, retail and repair (25.8%), followed by public administration and defence (12.2%), accommodation and food services (9.8%) and those working in the education sector (8.4%).

***Table 1.5 Structure of the labour market in 2020***

| | Total population, thousands | Share of the population |
|---|---|---|
| Agriculture | 16.5 | 2.7% |
| Industry | 40.4 | 6.5% |
| Services | 162.5 | 26.2% |
| *– of which, in the education sector* | *13.7* | *2.2%* |
| Total employed | 219.4 | 35.4% |
| Unemployed/jobseekers | 47.8 | 7.7% |
| Population under 15 years | 119.0 | 19.2% |
| Inactive | 233.6 | 37.7% |
| **Total** | **619.8** | **100.0%** |

*Source: Labour Force Survey 2020*

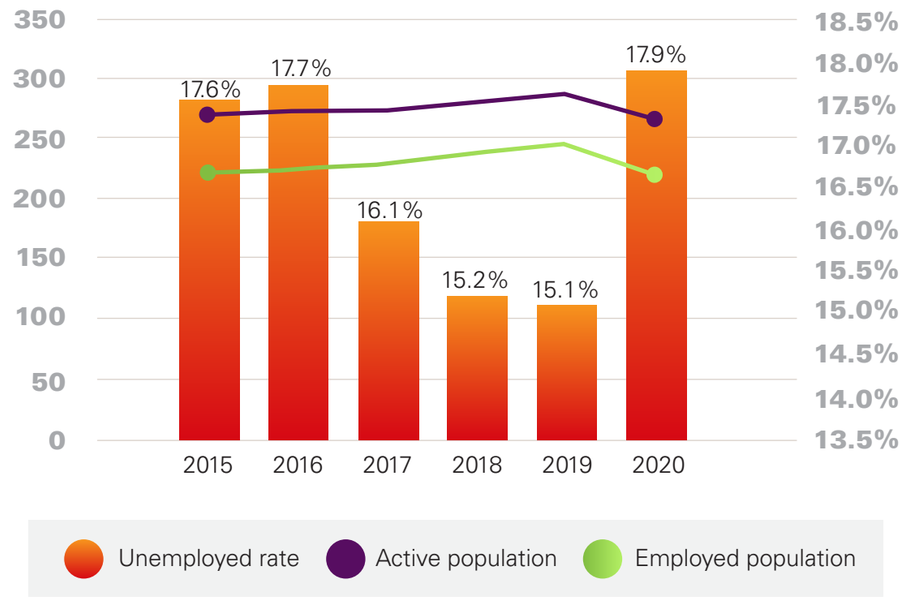
**Over the period 2015–2019, both the active population (the total workforce including the unemployed looking for a job) and the employed population increased. The gap between both indicators slightly decreased, which reflects an overall decrease in unemployment. Progress made in the period 2015–2019 was, however, completely offset in 2020 due the impact of COVID-19 on the labour market.** Figure 1.3 shows that the total active population (workforce) increased by 4.1 percent from 268,900 in 2015 to 287,300 in 2019. During the same period, the share of the active population that was employed increased from 82.4 percent in 2015 to 84.9 percent. In 2020, the active population decreased substantially by 7 percent from 287,300 in 2019 to 267,100 in 2020, indicating that part of the population that became unemployed in 2020 decided to stop searching for alternative employment (either temporarily or retired early). The official unemployment rate increased to 17.9 percent.

32 Ibid.





***Figure 1.3 Economically active and employed population, 2015–2020***




*Source: Monstat, Workforce Surveys 2015–2020*

**In relative terms, unemployment is the highest among young people aged 15–24 with 36.0 percent of this group being unemployed.** Amongst the age group 25–49, the employment rate is lower, at 18.3 percent, although in absolute numbers this group faces the highest unemployment. The age group 50–64 has the lowest share of unemployed in both relative and absolute terms.

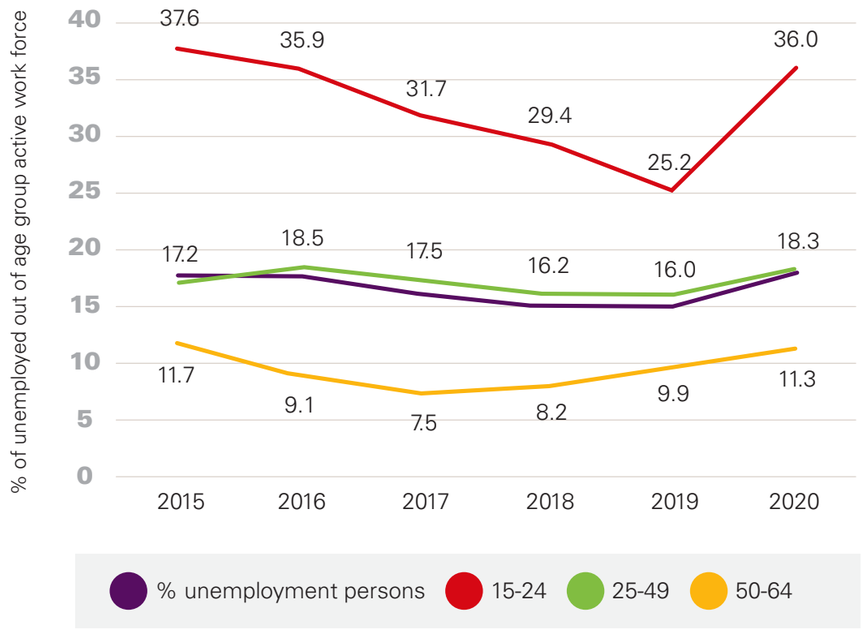
***Table 1.6 Employment status of the active population, in thousands, by age group, 2020***

| | Total | 15–24 | 25–49 | 50–64 | 65+ |
|---|---|---|---|---|---|
| Employed | 219.4 | 16.9 | 136.5 | 59.9 | 6.1 |
| *Share of active population* | *82.1%* | *64.0%* | *81.7%* | *88.7%* | *100.0%* |
| Unemployed | 47.8 | 9.5 | 30.6 | 7.6 | |
| *Share of active population* | *17.9%* | *36.0%* | *18.3%* | *11.3%* | |
| **Active population** | **267.2** | **26.4** | **167.1** | **67.5** | **6.1** |

*Source: Labour Force Survey 2020*

**The rate of youth unemployment showed a significant decreasing trend in the last few years, but progress in this regard was set back in 2020 during the peak of the COVID crisis.** In 2015, 37.7 percent of the active 15–24 age group was unemployed. In 2019, this share had fallen to 25.2 percent, but in 2020 there was again a steep increase to 36.0 percent. This high percentage is also partly caused by the fact that a relatively large part of the age group 50–64 became inactive in 2020, which might signal some hidden unemployment (see Figure 1.4).

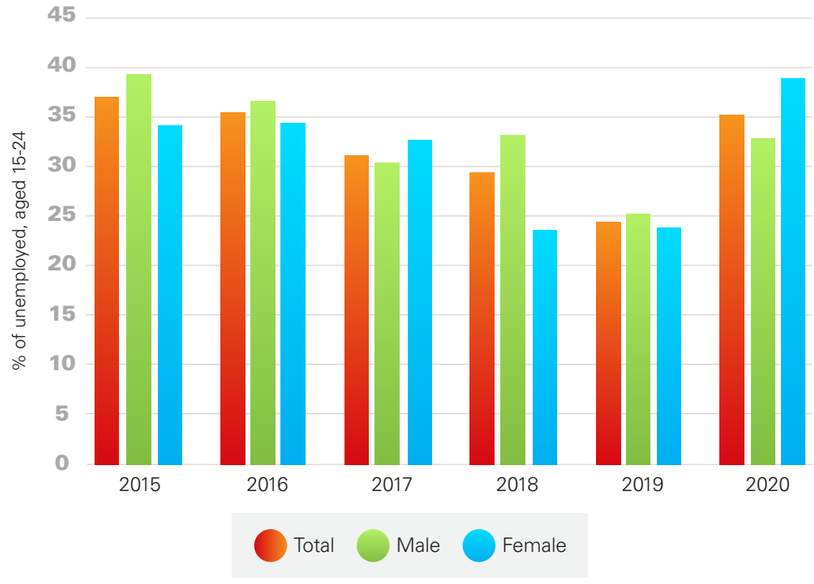
***Figure 1.4 Unemployment ratio among different age groups, 2015–2020***




*Source: Monstat, Workforce Surveys 2015–2020*

**In the last year before COVID-19, the unemployment rate was at its lowest level, with minimal gender differences.** In 2020, youth employment increased substantially for both sexes, although women were relatively more affected than men. In previous years, youth unemployment was slightly higher amongst men, with the exception of 2017, when there were relatively more women unemployed.

***Figure 1.5 Unemployment ratio among young people in the age group 15–24, 2015–2020***



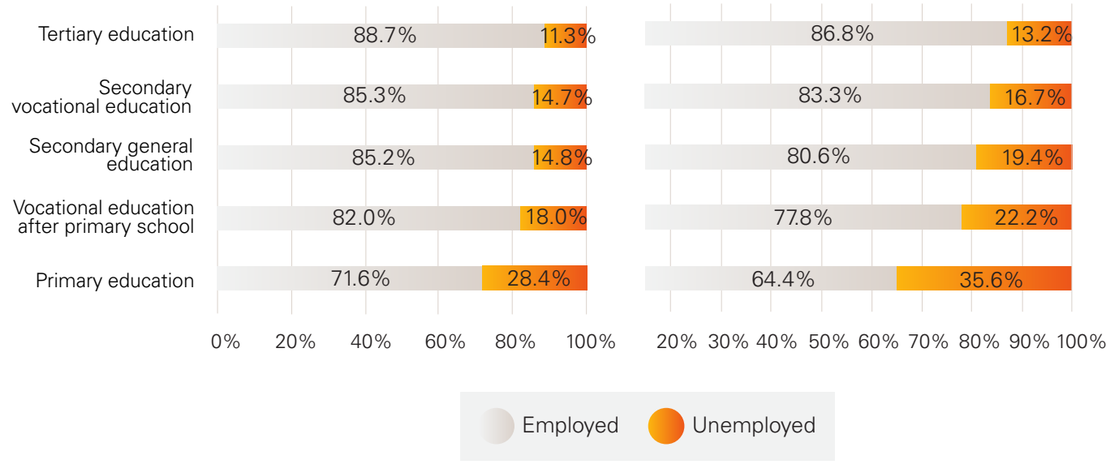

*Source: Monstat, Workforce Surveys 2015–2020*





**Already before 2020, unemployment was most common amongst those with the lowest level of education, COVID-19 further increased overall unemployment but had the deepest impact amongst this group.** When comparing employment rates by the highest level of education attained by education system leavers or graduates, unemployment is present at all levels, but is most common among the group that has only completed primary education. Figure 1.6a shows that, in 2019, about 28 out of 100 people were unemployed in this group. Unemployment amongst those that had completed tertiary education was much lower, with roughly 11 out of 100. Figure 1.6b shows that in 2020 unemployment further increased in the group with the lowest attained level of education by about 25 percent, to roughly 36 out of 100 people. Unemployment amongst those that completed tertiary education also increased substantially by 17 percent, but, in comparison, it remained at a much lower level – roughly 13 out of 100.

***Figure 1.6a and 1.6b Unemployment, by Education Level in 2019 and 2020***




*Source: Own calculations based on the 2019 and 2020 Labour Force Surveys*

Unfortunately, it is not possible to provide a further breakdown of unemployment by education level to see, for instance, which age groups these unemployed people belong to. We know that around 25 percent of young people are unemployed; however, no data has been collected on the highest level of education of those unemployed. That would be interesting information to collect to further inform policymaking.

**Those that only attained primary school or lower also make up the group most at risk of falling into poverty. The situation is even more severe when considering the position of children.** Table 1.7 shows that the risk increased, when comparing 2015 and 2019 (the most recent available year) with regards to all the categories, but is most severe among adults with a low level of education and their children. In 2015, 35.7 percent of adults with lower than secondary education were at risk, compared to 38.7 percent in 2018. In the last five years, more than three quarters of children whose parents have lower than secondary level of education (ISCED: 0–2) are at risk of poverty. With an increase in the level of education of parents, the rate of children at risk of poverty decreases, with 32.8 percent at risk when observing the children of parents with a level of education up to the secondary level (ISCED: 3–4) and 12.4 percent at risk when the children of parents with a higher level of education are observed

(ISCED: 5–8). Nonetheless, also in these categories, the situation is worse when compared with 2015. The impact of COVID-19 is not yet apparent in these figures, but will most likely lead to a deterioration in them.

***Table 1.7 The at-risk-of-poverty rate of adults and children by the highest level of education attained (by parents)***

| Highest attained education | 2015 | | 2016 | | 2017 | | 2018 | | 2019(*) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Adult | Child | Adult | Child | Adult | Child | Adult | Child | Adult | Child |
| Less than secondary | 35.7 | 75.9 | 37.7 | 76.8 | 36.2 | 83.6 | 41.4 | 77.8 | 38.7 | 84.5 |
| Secondary level | 22.3 | 35.3 | 21.7 | 33.2 | 20.8 | 31.1 | 19.1 | 34.8 | 19.6 | 32.8 |
| Higher level | 7.6 | 13.3 | 7.0 | 10.5 | 6.8 | 11.6 | 7.3 | 8.0 | 8.1 | 12.4 |

*Source: EU statistics on income and living conditions (EU-SILC)*
*(*) preliminary data*

Research has unequivocally determined the positive impact of education on income. Data on the annual average income by education level can determine how each additional level of education contributes to increasing income and can also provide further insight into how well the education system is responding to demand in the labour market. There is however no official information source available to quantify this effect.

**Using other methods, various studies have pointed out that there is a skills mismatch between the education system and the labour market; this mismatch and the lack of job creation remain key obstacles to growth and competitiveness.**[33] The skills mismatch manifests itself at secondary and higher education levels, and stems from high transitions from VET into higher education and programmes that are less relevant to labour market needs. It seems an oversupply of higher education graduates, particularly in professional fields that are in low demand, such as law, business and the humanities, is producing a high level of graduate unemployment.

During the last 15 years the vocational educational system underwent substantial changes. In this regard, the Law on National Vocational Qualifications (NVQ) of December 2008 and the Law on Amendments to this Law of June 2016 mark milestones in shifting the focus in the educational system to learning outcomes, with the objective of achieving maximum employability of the population.

In 2017, the Ministry of Education began further reforms to the education system, including Vocational Education and Training (VET). The biggest change is the introduction of dual VET, which represents significant progress in improving school-to-work transitions through work-based learning. It involves parallel learning and working with an employer for VET students, while the student gets a monthly payment for employment. In academic year 2018/2019, almost 300 VET students were being educated in collaboration with 97 employers. Based on improved methodological documents: for the school year 2017/2018 10 modularized educational programmes were prepared; for 2018/2019, 16 modularized educational programmes were prepared; for 2019/2020, 13 modularized educational programmes were prepared; in the school year 2020/2021, 11 new modularized educational programmes were prepared, while one was revised (a total of 65 new and one revised). In addition, three customized modularized educational programmes for students with special educational needs were prepared. This can be considered one of the key reasons for the increase in the net enrolment rate (NER) in secondary vocational education, as shown in Chapter 2.

33 Skills Mismatch Measurement in Montenegro, European Training Foundation, 2019.





# 1.3 Organization of the education system

## 1.3.1 Regulatory structure and national strategies and policies

**As a priority sector for Montenegro, a whole set of laws aimed at enhancing the quality of and access to education, from preschool to vocational training, was passed in 2017, in line with Sustainable Development Goal 4 (quality education).**[34] The Law on Elementary Education law stipulates that schooling is compulsory for nine years (from ages 6 to 15) and is free-of-charge. Public schools are government-financed, receiving equal financial support from the government if certain criteria are met. The Law on Preschool Education, the Law on Elementary Education, the Law on General Secondary Education, the Law on Vocational Education, the Law on Higher Education and the Law on Education of Children with Special Educational Needs serve as the basic documents regulating education in the country.[35]

The National Strategy for Sustainable Development recognizes the importance of the education system: "The prerequisite for realization of the set social goals (GDP growth, employment, life standard improvement, etc.), i.e. economic progress, means further continuous improvement of education through the improvement of learning and teaching quality. This means professional development of teaching staff at all levels, application of modern teaching practices, access to early education and upbringing, inclusion of children from the most sensitive groups and children with special educational needs, accomplishment of active cooperation with parents and local communities, as well as procurement of higher standards in working and learning conditions."[36]

**There are a number of strategies to improve the education system, but there is no overarching education sector strategy.** For example, the new Strategy for Preschool Education in Montenegro was adopted in 2021 and covers the period until 2025. The Government of Montenegro has adopted a Strategy for Inclusive Education (2019–2025) which sets the directions for ensuring quality, inclusive education, based on binding international standards in connection with the Convention on the Rights of the Child and the Convention on the Rights of Persons with Disabilities and relevant general comments and recommendations of the respective UN treaty bodies.[37]

## 1.3.2 Overview of the education system

**Today, the education system in Montenegro consists of preschool, primary, general secondary education (gymnasiums), vocational education, tertiary (higher) education and life-long learning (adult education).** The system consists of: 21 public and 30 private preschool institutions; 162 public and five private primary schools (excluding branches (school

34 United Nation Sustainable Development Goal No.4 aims to "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all."

35 According to the law, children with special education needs are: 1) children with developmental disabilities children with physical, intellectual, sensory impairments, children with combined and autism spectrum disorders; 2) children with developmental difficulties, children with speech and language difficulties, behavioural disorders; difficult chronic diseases; long-term sick children and other children who have learning difficulties and other difficulties caused by emotional, social, linguistic and cultural barriers.

36 Montenegro National Strategy for Sustainable Development and Tourism until 2030, 2017.

37 Ministry of Education, Strategy on Inclusive Education of Children in Montenegro 2019–2025, Podgorica, 2019. http://www.mpin.gov.me/ResourceManager/FileDownload.aspx?rId=363254&rType=2.

units) which fall under the same school's management); 50 public, one public–private and four private secondary schools (gymnasiums, vocational and mixed schools); 13 state and one public–private musical schools; three resource centres for children with disabilities; and 115 licensed adult education organizers. As mentioned in the introduction, private and higher education fall outside the scope of the analysis. Table 1.8 provides some key data on public schools (see Chapter 2 for more information).

***Table 1.8 Key data for public schools, 2020/2021***

| Level of Education | Pupils | Teachers* | Schools (2019) | Number of school units |
|---|---|---|---|---|
| ECE | 20,722 | 1,196 | 21 | 139 |
| Primary | 68,506 | 4,344 | 162 | 402 |
| Secondary | 26,816 | 1,995 | 51 | 52 |
| Higher | 18,403 | 1,365** | 1 | 5 |

*Source: Monstat*
** Monstat data and the data received from MEIS are inconsistent. There are data issues here related to teachers working part-time and working on a contractual basis and should be treated with caution.*
*See Chapter 2 for more details.*
*** Data for 2020/2021*

**Early childhood education** (ECE) includes children before they are old enough to enter primary school (6 years). The International Standard Classification of Education (ISCED) makes a distinction between children up to the age of 3 in kindergartens (early childhood educational development – ECED) and pre-primary education (PPE) targeting children from the age of 3 until starting primary school. In Montenegro, the terms nurseries and kindergartens are used and both services are usually combined in one building. Also, in terms of data collection, it is often not possible to distinguish between ECED and PPE. For the remainder of the report, we will therefore use the term ECE to include both. Although ECE is not compulsory in Montenegro, the Strategy for Early and Preschool Education, adopted in 2021, sets as one of its objectives the increase in the coverage of early childhood education for all children, targeting particularly those from the age of 3 and above in preschools.[38]

**Primary education** in Montenegro includes both primary and lower secondary education according to the ISCED definition. It is compulsory for children aged 6 to 14 or 15 and it consists of nine years of education. Students are promoted to the next grade automatically until grade 5. After that, students are automatically promoted only if they have passing marks from all subjects. Those students that have failing marks of 1, 2 or 3 at the end of the grade need to pass remedial exams from the subjects they failed in order to be promoted to the next grade, and those who have more than three failing marks or who fail the remedial exam have to repeat the grade. The current structure has been in place since 2004 when primary education was extended from eight to nine years and the enrolment age was lowered from 7 to 6 years. This was introduced in order to help compensate for potential loss or delays caused by children not attending ECE.

**Secondary education** lasts three or four years, depending on the course of study. There are three main types of secondary schools. General secondary schools or gymnasiums offer four years of general academic education which is completed by passing the final exam. Vocational schools offer two, three or four years of practical education. There are also secondary schools that offer both general and vocational education.

38 UNICEF Montenegro and Montenegro Ministry of Education, Strategy on Early and Preschool Education in Montenegro 2016–2020, 2016. https://www.unicef.org/montenegro/en/reports/strategy-early-and-preschool-education-montenegro-2016-2020.

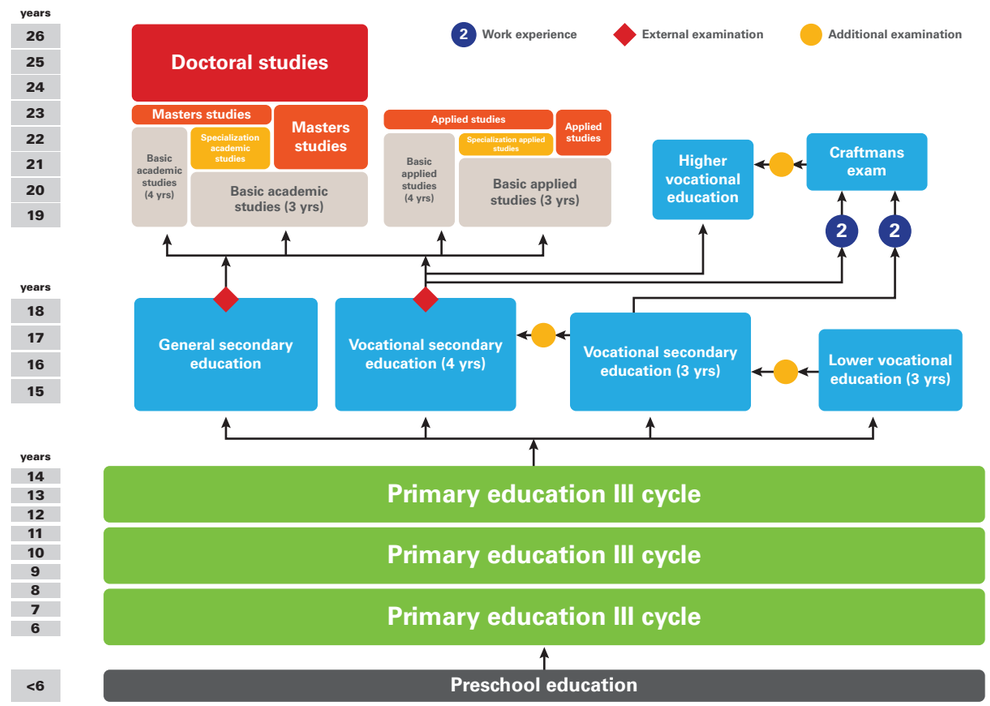




**Higher education** is provided by the University of Montenegro, which is the largest and only public tertiary institution in Montenegro, and by a number of smaller, privately managed universities. The University of Montenegro is legally autonomous, but it is funded largely from the state budget. The faculties of the university and its institutes are dispersed over five cities and towns in Montenegro.

**Education for children with special educational needs (SEN),** for both primary and secondary education, falls under jurisdiction of the MoESCS, while the Ministry of Finance and Social Welfare is involved when it comes to the social protection of these children. The process of inclusive education was officially introduced with the education reform of 2003. The education of children with special educational needs is considered part of a single education system and an activity of public interest. It is based on the Law on the Education of Children with Special Educational Needs. When it comes to children with special educational needs, the Montenegrin education system offers inclusive education as a first choice in regular kindergartens and schools from the moment of detecting developmental disabilities. Referral to mainstream education is based on the proposals of local referral panels. Special schools/special education institutions have been transformed into resource centres (three in total) whose main role is to support regular schools (training, early intervention, treatments, classrooms with assistive equipment). In addition to this, the resource centres continue to serve as schools for children with complex disabilities. Seven primary schools feature so-called integrated classes with a special programme for students with complex disabilities. Children from said integrated classes attend classes in individual subjects together with their peers. The number of children with disabilities enrolled in regular schools has been steadily increasing over the last 10 years.

***Figure 1.7 Education in Montenegro***



### 1.3.3 Governance context

**The MoESCS is responsible for all aspects of early childhood, primary and secondary education.** Educational policy is coordinated by the Ministry of Education, Science Culture and Sports (MoESCS), a new ministry established in 2020 through the merging of four different ministries after the new government took office in December 2020. Before that, education policy was coordinated by the Ministry of Education (MoE). For the purpose of education policy implementation and quality assurance, the government has established the National Council for Education, Council for Higher Education and Council for Qualifications. The National Council for Education has an advisory and/or decision-making role regarding educational programmes, standards, textbooks and general questions of the quality of education at pre-university levels.

The MoESCS is responsible for planning, implementing and reviewing education policy at all levels of education in the country. In organizational terms, the part of the ministry in charge of education has several departments:

- Directorate for Preschool, Primary and Inclusive Education;
- Directorate for General Secondary Education, Vocational Education and Life-Long Learning;
- Directorate for Education of Members of Minority Peoples and Other Ethnic Communities;
- Directorate for Tertiary Education.
- ICT, Statistics and Analytics Department.

In line with its mandate, the MoESCS supervises the work of independent administrative bodies with specific competencies – the Bureau of Education Services, the Centre for Vocational Education and Training, the Examination Centre and the Institute for Textbooks and Teaching Aids:

- The Bureau of Education Services is in charge of monitoring and ensuring the quality of education in schools and kindergartens, and preparing materials for deliberation by the National Council and the MoESCS. It is tasked with development, advisory and research-related activities in the area of pre-university education;
- The Centre for Vocational Education and Training is in charge of development (implementation of strategic documents, development of occupational and qualification standards, development of educational programmes, teacher training) and advisory support in the field of vocational education and training (both youth and adult education);
- The Examination Centre of Montenegro performs national testing of knowledge, skills and abilities and is in charge of conducting examinations and international assessments;
- The Institute for Textbooks and Teaching Aids is in charge of developing and publishing textbooks and other teaching aids for pre-university education.

In order to implement the activities set forth in the education policy and perform quality assurance, the Government of Montenegro has established the National Council for Education, the Council for Qualifications and the Council for Higher Education.

The Council for Higher Education has been appointed by the Parliament of Montenegro, at the proposal of the government. It conducts activities for the improvement and development of higher education. Among other things, the Council: analyses the state of and achievements in higher education; prescribes the conditions and criteria for appointment to academic titles; provides opinions on the amount of resources required for funding public higher education institutions; provides opinions on the number of students attending programmes; and cooperates with higher education institutions in terms of quality assurance and quality improvement.

The National Council for Education was established for the purpose of deciding on professional issues and providing expert assistance in the decision-making process. In addition to this, the task of the Council is to prepare regulations in the field of education and upbringing. It adopts educational programmes at all levels, examination catalogues, standards for the development of textbooks, professional training programmes, programmes of work of professional associates, instructions for the development of educational programmes and the like.

The Council for Qualifications was established with the aim of improving the system of qualifications, approving qualifications themselves and classifying them within the National Qualifications Framework.

Quality assurance and improvement of work in preschool, primary, and secondary education are carried out in accordance with the General Law on Education and accompanying bylaws. Providing and improving the quality of educational work is performed by the educational institution (by means of self-evaluation) every year in individual areas, and every two years as a whole.

The Bureau of Education Services is in charge of ensuring and improving the quality of education in preschool institutions, primary schools and general secondary schools, while the Centre for Vocational Education and Training remains responsible for determining and ensuring the quality of educational work in the fields of vocational and adult education. The Bureau of Education Services and the Centre for Vocational Education and Training ensure and improve the quality of educational work of institutions (external evaluation of their work and quality assurance) at least once every four years.

External evaluation of the quality of educational work of schools is performed by educational supervisors employed in the Bureau of Education Services, as well as by authorized advisors and external associates. Based on their report assessing the quality of work, the principal adopts a school quality improvement plan, which is then submitted to the Bureau of Education Services. In the case of institutions delivering secondary vocational education, such a plan must be submitted to the Centre for Vocational Education as well.

## 1.4 Conclusions and recommendations

Chapter 1 provided a general overview of the organization of the education sector in Montenegro and the context in which it functions. The following findings are relevant for understanding the context in which the Montenegrin education system operates and for future planning.

**Education Sector Plan** – The GoM has developed a number of strategies to improve the education system, but there is no overarching education sector strategy. *It is recommended to develop an integrated Education Sector Plan* that responds to the needs of students and which benefits society as a whole, to ensure a well-planned, coordinated and budgeted action and implementation of measures around the key challenges identified in the Education Sector Analysis (see Chapter 7).

**Demographic changes –** Overall, the school-age population is relatively in decline. At the same time, there are noticeable differences in the demographic trends between regions and municipalities. More job opportunities and better living conditions in the central and southern regions have significantly influenced internal migrations and have led to increased urbanization. The increasing demand for education in urban areas and decreasing demand in rural areas are creating new challenges to the existing education system. *It is recommended to consider these trends as relevant for the future planning of school infrastructure and capacity* (see also Chapter 2).

**Socioeconomic progress –** The overall trend in human development has been positive since the country's independence in 2006 up until 2019; however, there is still a large vulnerable group with high risk of falling into poverty. There is, for instance, a large discrepancy between the average per capita incomes of the richest and the poorest sections of the population. A significant number of children aged 0–17 (around 33%) were at risk of poverty in 2019 and those that only attained primary school or less are also the group mostly at risk of falling into poverty. The situation is even worse when considering the position of children, and this situation has only become more severe as a consequence of the impact of the COVID-19 pandemic. *This means that, in terms of education planning, specific attention is needed for vulnerable groups to ensure that education is fully inclusive* (see also Chapter 4).

**Labour market –** Even though progress has been made, various studies have pointed out that there is a skills mismatch between the education system and the labour market; this mismatch and the lack of job creation remain key obstacles to growth and competitiveness.[39] *The Education Sector Plan should include a clear longer-term vision on how the education system can be adapted to improve quality and employability* of education (see Chapter 3).

**Macro-economic outlook –** For almost a decade, Montenegro has experienced economic growth, but growth started to slow down in 2019 and turned negative in 2020. Montenegro has been hard hit by the COVID-19 pandemic and the figures during 2020 show a GDP decline of more than 15 percent, while the debt rate will continue to increase to an expected 98.5 percent of GDP in 2021.[40] At the time of writing there still high uncertainties about the economic recovery period. *Nonetheless, it is clear that the adjusted economic outlook and fiscal space for investments after COVID-19 have to be respected when preparing the Education Strategic Plan* (see Chapter 5).

**COVID-19 and resilience of the sector –** The pandemic has affected almost the entire population, but mostly the low educated, unemployed and other vulnerable groups. Also, with regard to the education sector, the COVID-19 pandemic has created disruptions and affected all children, but in particular those from vulnerable groups. *The resilience of the sector needs to be taken into account when preparing the Education Strategic Plan* (see Chapter 6).


39 Skills Mismatch Measurement in Montenegro, European Training Foundation, 2019.

40 World Bank Global Economic Prospects, January 2021 (The cut-off date for the data used in this report was 18 December 2020). https://betabriefing.com/see-business/montenegro/12577-montenegros-public-debt-may-rise-to-98-of-gdp-wb-forecasts.




# 2 School infrastructure, enrolment and internal efficiency

This chapter provides an overview of the quantitative performance of the Montenegrin education sector, in terms of school enrolment, the internal efficiency of the education system and out-of-school children. It is divided into five sections: i) school capacity; ii) enrolment; iii) internal efficiency; and iv) out-of-school children. The chapter provides an overview of the Montenegrin education sector from the perspective of the general population. The specific situation of vulnerable and marginalized groups is analysed in more detail in Chapter 4.

## 2.1 School infrastructure and capacity

**Montenegro faces a serious mismatch in the demand and supply of school infrastructure, where a large number of primary and secondary school units operate either below or above their designed capacity. For ECE, more information is needed to conduct a similar detailed analysis. Provisional data, however, suggests there is a big shortage in most municipalities.** Before analysing enrolment, it is important to bear in mind the alarming situation regarding school infrastructure and capacity in a large part of Montenegro. This section provides a summary of our analysis on the infrastructure challenges. The full analysis can be found in Annex 3.

### 2.1.1 Early Childhood Education

The school capacity for ECE has improved considerably in the last decade, and so has enrolment, yet more capacity is needed to ensure a further, needed increase in enrolment. In total, there are 21 public ECE institutions scattered over the different municipalities. Four municipalities (Gusinje, Petnjica, Zabljak and Tuzi) do not have pre-primary institutions, but they have care units as a part of educational institutions in other municipalities (Plav, Berane, Pljevlja and Podgorica). Podgorica is the only municipality with two public ECE institutions. These 21 institutions run in total 148 public PPE school units (including branches) with 749 educational groups.41 Compared to 2015, ECE school capacity increased by 41 percent (from 105 public educational units in 2015 to 148 in 2020), while the number of educational groups increased by 45 percent (from 515 to 749).

No complete overview of the ECE school infrastructure is available. Unfortunately, there is not a complete set of data broken down by the number of classrooms per school unit. This is because not all institutions report the data per school unit. This, in itself, is an important outcome as, for effective future planning, it is essential to have an accurate aggregated overview of the existing geographical supply and demand to determine where to invest in additional infrastructure. Annual Reports from the MoESCS show that, in the last five years, investments in dditional ECE capacity took place in the municipalities of Podgorica, Tuzi, Pljevlja, Bar, Ulcinj[42] and Rozaje. The investments concerned both the building of new capacity and reconstruction of the existing facilities.

41 Monstat, Pre-primary education and childcare, 2020/2021.

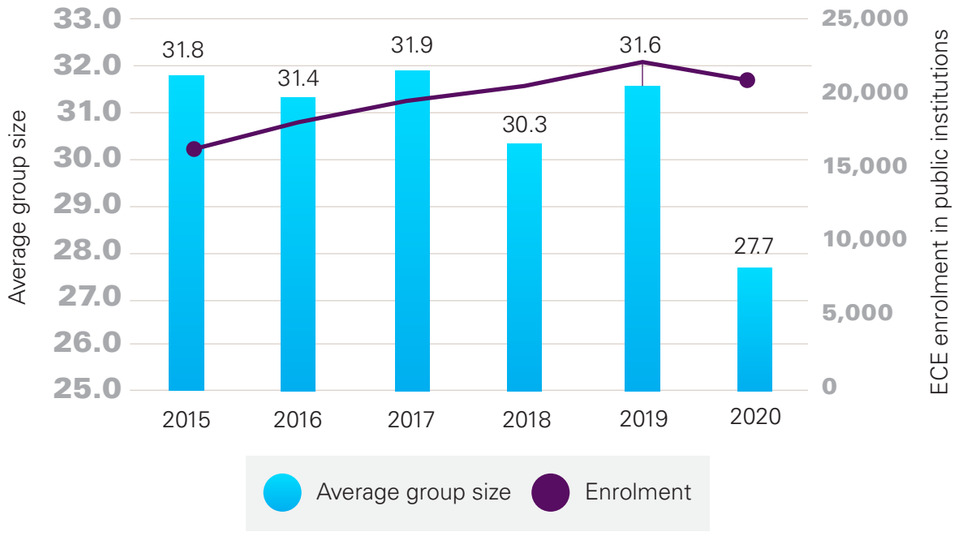
42 Through a loan from the Council of Europe Development Bank.

**Given the data limitations, ECE infrastructure capacity has been assessed based on average group sizes.** As a proxy for the number of classrooms, we used the average number of children per group per year (average group size). It should be noted that there is not necessarily a linear relationship between the number and size of ECE groups and ECE classrooms. Firstly, the size of an ECE group does not solely depend on the (un)availability of physical classroom space, but can also depend on the (un)availability of educators. Secondly, the capacity of the classroom will also depend on its utilization. For instance, in the case of half-day programmes, there can be twice as many children (in different groups) making use of the same classroom. Nonetheless, the available data on group sizes can still give some provisional insights into the availability of preschool infrastructure.

**Assuming that most preschools operate classes with mixed-age groups, we used an average of 20 as a maximum group size for the remainder of this analysis.** According to the law, group sizes can vary depending on the age of the child, with a lowest maximum group size of 10 for children aged 0–2 years and 25 for children in the age group 5–6 years. For mixed groups with children aged 3–6, the maximum group size is 20.[43] The actual norm per preschool will therefore depend on the age structure of the children that attend.

**Data shows that additional ECE capacity has resulted in extra enrolment, but has had limited impact on the average group sizes.** Figure 2.1 shows that, even though ECE enrolment increased considerably, the national average group size remained relatively stable. This implies that the increase in enrolment did not negatively affect the average group size and confirms that extra capacity has been created to facilitate the additional enrolment. However, this does not necessarily mean that infrastructure development has taken place at the same speed as the increase in enrolment. There could have been other factors that contributed to an increase in enrolment capacity, such as a change in the number of hours of education. The available data does not allow one to make an assessment of whether the increase in enrolment went hand-in-hand with a (partial) shift from full-day programmes towards half-day programmes.

***Figure 2.1 Average ECE group size, national level, 2015–2020 and total ECE enrolment in public ECE institutions***




*Source: Monstat and MEIS data 2015–2020*

43 Article 24 from the Law on Preschool Education, 2015.

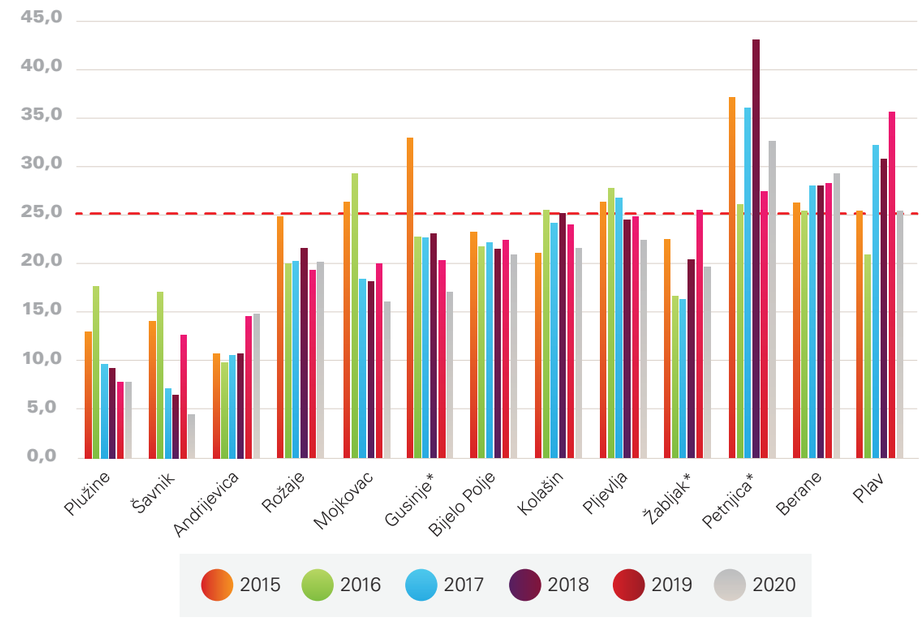




**Yet, on average, ECE groups have remained too large.** Even while both enrolment and capacity have increased, the national average group size has remained far above the national norm of 10 to 25, depending on the age-group composition. This means that the extra capacity has allowed extra enrolment, but has not been used to reduce the average group size.

**There are, however, regional differences to be taken into account and the situation is most severe in the central region**. Figure 2.2 shows that almost all municipalities in the northern region operate with group sizes below the national average. The number of children in ECE in the northern region is also relatively small. Out of the total children that were enrolled in 2020 in public ECE institutions (20,722), only 17 percent (3,531) were living in the northern region. Yet, still three out of the 13 municipalities in the northern region (Plav, Berane and Petnjica) show averages above the absolute maximum norm of 25, while six are above the norm of 20.

***Figure 2.2 Average ECE group size, northern region, 2015–2020 in public ECE institutions***

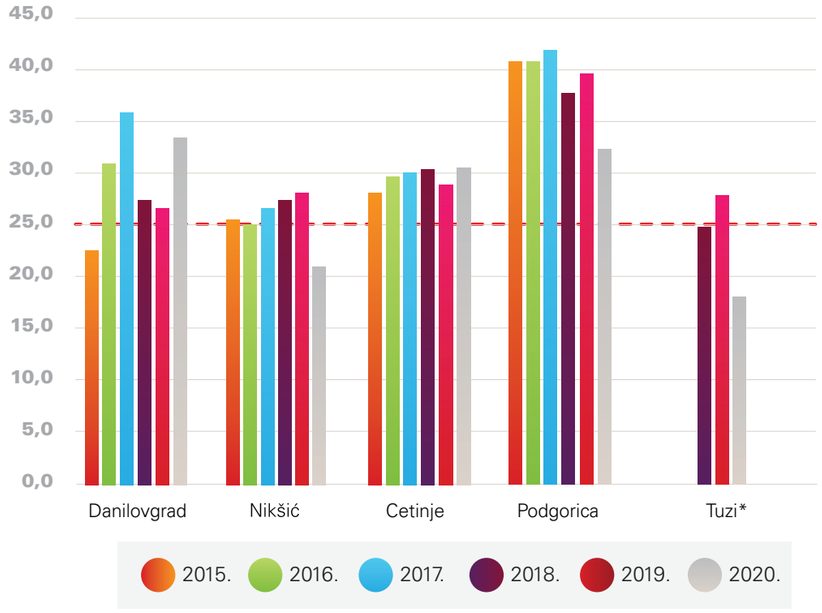



The dotted line represents the maximum number of children per preschool group as stipulated by the law (for children aged 5–6 years)

*Source: Monstat and MEIS data 2015–2020*

Figure 2.3 shows that, in the central region, most municipalities have average group sizes above the maximum norm. The situation is most severe in Podgorica. In 2020, there were some downward trends, most likely because of lower entry rates in ECE due to COVID-19. At the same time, while Danilovgrad was the only municipality that showed a clear downwards trend in 2018 and 2019, it showed an increase again in 2020 to levels far above the maximum norm. The impact of the performance of the central region on the national average is big because the majority of children enrolled in public ECE are from in the central region (55%).

***Figure 2.3 Average ECE group size, central region, 2015–2020 in public ECE institutions***

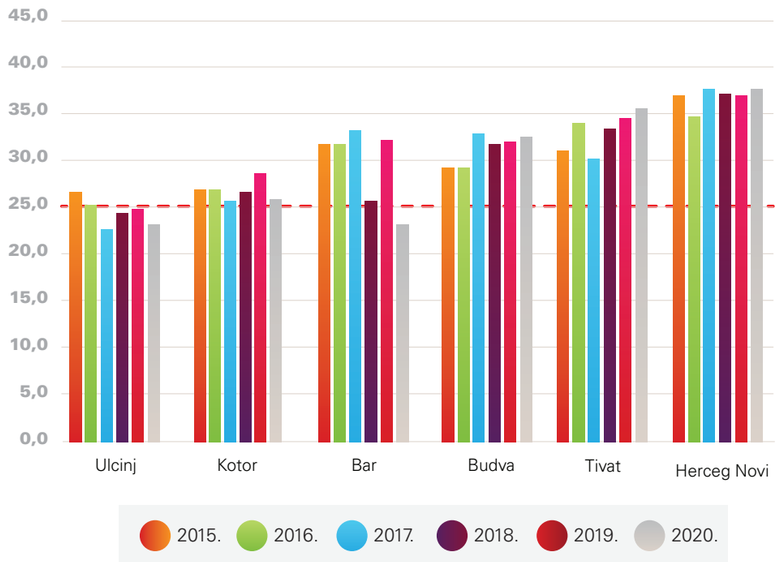



The dotted line represents the maximum number of children per preschool group as stipulated by the law (for children aged 5–6 years)

*Source: Monstat and MEIS data 2015–2020*

Also, in the southern region, the average group sizes in all municipalities are close to or above the absolute maximum norm of 25, as shown in Figure 2.4. The southern region had 28 percent of all the ECE pupils in public institutions in 2020.

***Figure 2.4 Average ECE group size, southern region, 2015–2020 in public ECE institutions***




The dotted line represents the maximum number of children per preschool group as stipulated by the law (for children aged 5–6 years)

*Source: MonStat and MEIS data 2015-2020*



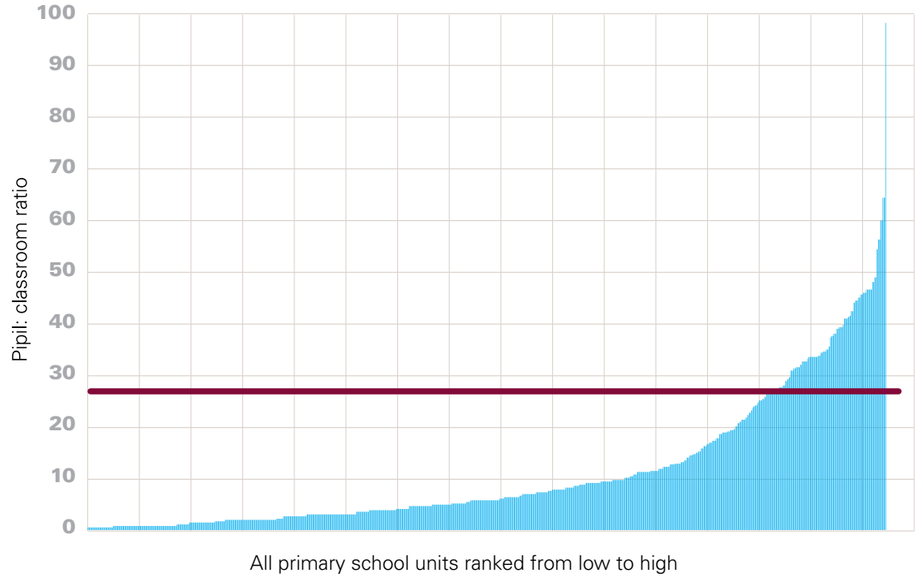


**More data and research is needed to draw more precise conclusions on ECE infrastructure needs, which has been envisaged by the current strategy.** In particular, it should be noted that the above tables show the *averages* per municipality. The results of a similar analysis for primary and secondary education (where a much more complete data set is available) suggests that even *within* a municipality there can be considerable differences (see Sections 2.1.2 and 2.1.3).

## 2.1.2 Primary education

**In total, there were 162 primary schools which operated 402 primary school units (including branches) in 2019. Based on a sample of the 394 school units for which data is available (this represents 98 percent of all school units), we can conclude that, in 2019, 87 percent of school units were operating at or below a group size of 28 children per classroom and 13 percent above the norm**. According to the National Standards for Public Education Facilities,[44] the maximum group size per teacher in primary education is 28. This maximum number is lowered in cases where there is participation of a child with a disability within the group. For the analysis on school infrastructure, we have assumed that the same norm can also be applied to the classroom size, e.g. a maximum of 28 students per classroom. There is a broad variance in the pupil–classroom ratio, with extremes on either side. Only 5 percent of the school units operate within the range of an average group size of 22–28 pupils per classroom, while 83 percent have an average that is below 22 and 12 percent are above 28. Hence, the number of school units operating below their maximum capacity is much larger than the number of schools that are encountering a demand higher than their physical capacity. In such cases, combined classes may also be in use. This is in line with the Law on Primary Education. There is, however, no data to show how frequently classes are combined

***Figure 2.5 Pupil–classroom ratio ranked from low to high for each school unit of primary education in 2019***




*Source: Own calculations based on MEIS data*

44 Normatives and Standards for acquiring public revenue funds for institutions that implement publicly valid educational programmes, (published in the "Official Gazette of Montenegro", No. 66 of 19 November 2010, 41/13).

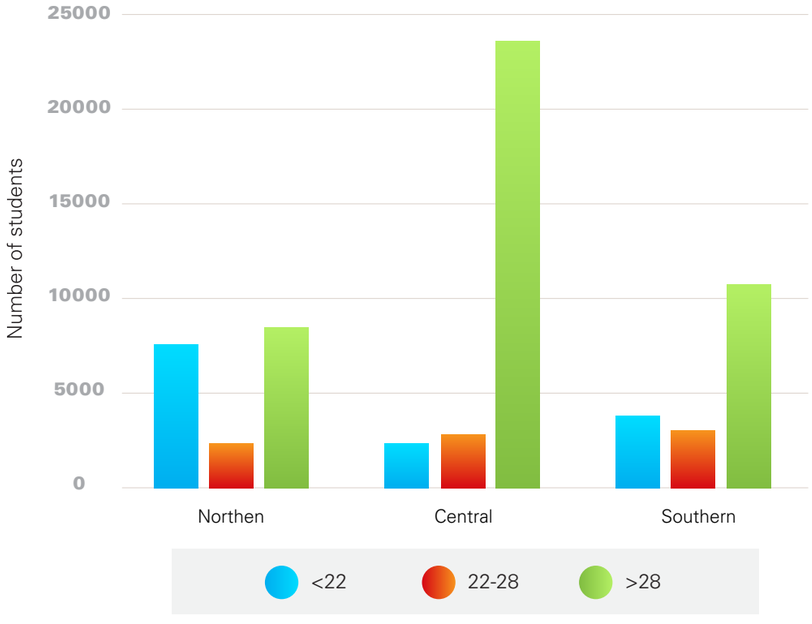
**Yet, two out of three children in Montenegro are in primary schools where physical infrastructure is insufficient.** That is because the 13 percent of school units that operate above the norm of 28 pupils per classroom, accommodate 72 percent of all the primary students, whereas the remaining 87 percent of school units only house 28 percent of the children. Hence, most children in Montenegro are facing a situation in school where they are either in (very) small classes or where classes become so big that the school opts to organize classes in double or, occasionally, even triple shifts. Only 12 percent of the children are learning in an efficient setting of between 22 and 28 pupils per class, 21 percent are in classes smaller than 22 and 67 percent are in classes larger than 28.

**In absolute numbers, most children facing overcrowded classes are based in the central region, but the southern and northern regions also have a high share of pupils in school units that run above a standard class size of 28.** Even though the situation is most severe in the central region (83%), the southern and northern regions also have between 67 and 47 percent of children in classrooms that operate above their capacity.

The occurrence of school units with a low demand is also present throughout the country. Even though the northern region has the highest number of children in small classes, in the southern and central regions there are also schools that are underutilized in terms of their physical capacity.

**The data does not answer the question of why certain schools are operating with such low pupil–classroom ratios.** There can be sensible arguments; for instance, in low populated areas there will always remain a need to guarantee access for all pupils even if the classes remain small. Also schools cannot control the level of enrolment in general. If enrolment is just above the norm, the school has to divide the children into two classes, bringing down the average. Low utilization can, however, also be the consequence of a (perceived) low quality of a school when there are other schools in the proximity, thereby reducing demand, or other kinds of inefficiencies. Therefore, more research is needed to understand the figures and to see how the school network can be optimized.

***Figure 2.6 Number of students by average group size per school unit and region in 2019***




*Source: Own calculations based on MEIS data*



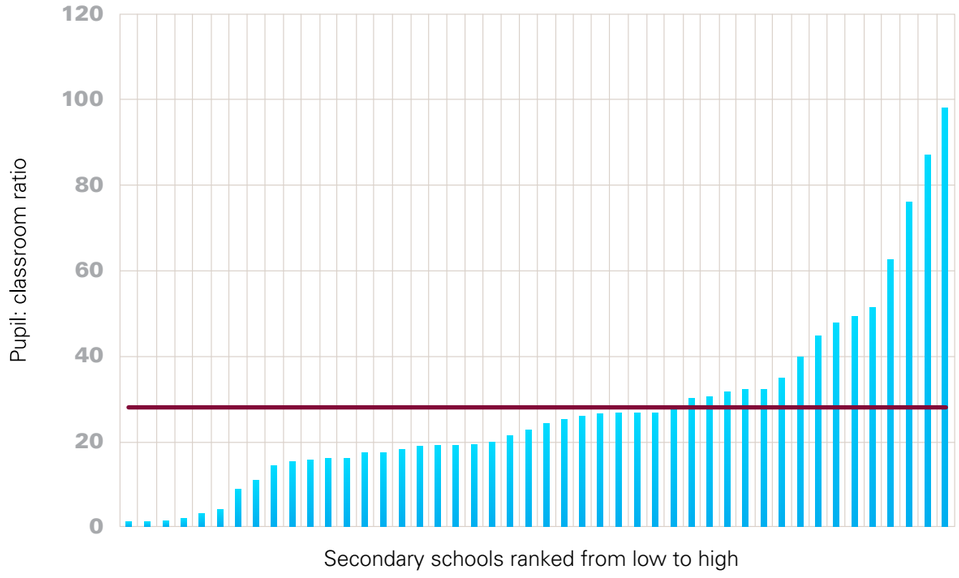


### 2.1.3 Secondary education

**In 2019, there were 52 secondary schools.[45] For secondary education, the school capacity issue is less extreme, although at this level there is also a systematic mismatch.** The analysis for secondary education should, however, be treated with a bit more caution because groups in secondary education usually attend several classrooms depending on the subject area, making the measurement and comparison of class sizes based on classroom data more difficult. Furthermore, the school sample size is much smaller, making the analysis more vulnerable to outliers. The norms for group size per teacher in secondary education is, however, also 28 (it is lower for groups that include a student with a disability), and for reasons of simplicity the same group-size norm of 28 has been applied for reconstructing the utilization of classroom infrastructure at the secondary level.

**Out of the 46 secondary schools for which data is available (this represents 88 percent of all schools), we can conclude that 31 schools (67%) operate at or below the norm of 28, and 15 schools (33%) above**. Also for secondary education, there is a broad variance in the pupil–classroom ratio in secondary education, but it is less severe when compared with primary education. Yet, still, only 20 percent of secondary schools operate within the range of 22 to 28 (compared with 5 percent for primary education), 22 schools (48%) have an average below 22, and 15 (33%) above 28.

***Figure 2.7 Pupil–classroom ratio ranked from low to high for each secondary school in 2019***

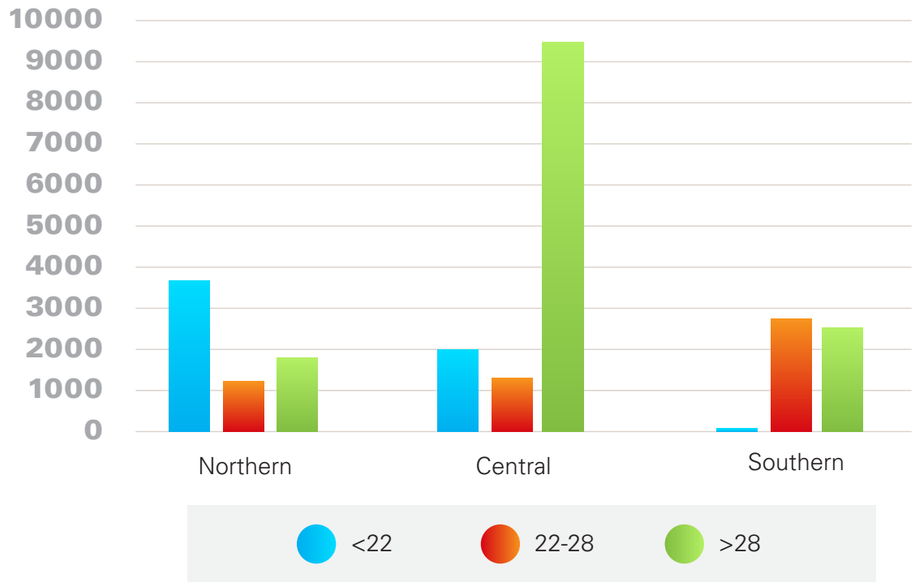



*Source: Own calculations based on MEIS data*

45 This includes one school (Srednja mješovita škola "Bećo Bašić") that has two branches. These are counted as separate schools in the analysis.

**In absolute numbers most students facing overcrowded classes are based in the central region. But, unlike for primary education, this is the only region where the majority of students are in schools with group sizes above 28.** In the southern region, a small majority are in schools with group sizes between 22 and 28, whereas in the northern region most students are in schools with relatively small group sizes. In the southern region, there are hardly any students in schools with small group sizes.

***Figure 2.8 Number of students by average group size per school unit and region in 2019***




*Source: Own calculations based on MEIS data*

**An understanding of all the underlying dynamics is necessary in order to define the most appropriate policy measures which can help to address this mismatch in supply and demand.** Similar to primary education, the analysis shows that certain secondary schools have higher enrolment levels than others, creating a severe mismatch between supply and demand which, in turn, results in high inefficiencies. However, further research is needed to determine the underlying causes and their legitimacy.

## 2.2 Enrolment

There are various enrolment indicators, which are further explained below, that can help to assess children's access to and participation in the education system. For each of these indicators, it is important to bear in mind the school capacity situation as described in Section 2.1.

### 2.2.1 Gross enrolment

**During the period from 2015–2020 the gross enrolment rate (GER) increased for all levels of education, but mostly for ECE.** The GER[46] shows the pupils enrolled at a certain level of education (regardless of age) as a share of the population that corresponds to the official

46 UNICEF, Education Sector Analysis Methodological Guidelines, 72.





school age for that particular level.[47] The GER indicates the general level of participation and the capacity of the education system to enrol students of a particular age group.

In theory, the GER can be more than 100 percent, as it includes students who may be older or younger than the official age group. There are, however, also some data limitations to the calculations of the GER (and the net enrolment rate (NER) presented in Section 2.2.2) that should be mentioned when assessing the GER (and NER). The first is that the official population data by age (used as the denominator in the calculation) is an estimate based on census data from back in 2011 and therefore may contain a certain margin of error. In addition, enrolment in religious secondary schools in Podgorica, Cetinje and Rozaje is not yet integrated into the MEIS system. Lastly, it is known that there are children who have been excluded/removed from high schools, most often due to a large number of unpermitted absences, who have lost the status of regular student. While the system shows these children to be out-of-school, some continue to take part-time classes and finish secondary school as part-time students but are not captured in the data below. Despite these limitations, the overall trends in the GER (and NER), rather than the absolute figures, still provide useful information to show overall progress.

***Table 2.1 Gross enrolment rates in Montenegro, 2015–2020, %***

| GER | | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|
| **Early Childhood Education (0–6 years)** | | 39.4 | 42.5 | 46.3 | 48.5 | 52.0 | 48.5 |
| **Pre-primary education (age 4+)** | | 64.4 | 69.9 | 73.3 | 76.9 | 81.2 | 75.7 |
| **Primary education (6–15 years)** | Total | 93.6 | 95.2 | 96.5 | 97.3 | 98.3 | 98.8 |
| | Grades 1–3 | 95.6 | 98.5 | 102.7 | 104.6 | 102.6 | 101.5 |
| | Grades 4–6 | 95.0 | 96.3 | 95.1 | 94.7 | 97.7 | 101.4 |
| | Grades 7–9 | 90.5 | 90.9 | 95.3 | 93.2 | 94.8 | 93.6 |
| **Secondary education (15–18 years)** | Total | 78.3 | 76.9 | 79.4 | 80.3 | 81.8 | 83.7 |
| | Four-year | 73.6 | 72.4 | 74.3 | 72.3 | 71.1 | 70.5 |
| | Three-year | 4.6 | 4.5 | 5.1 | 7.9 | 10.7 | 13.1 |

*Source: Calculations based on MEIS and Monstat data*

**For ECE, the GER increased from 39.4 percent in 2015 to 52.0 percent in 2019, indicating substantial growth in the number of children who are enrolled in preschool education**. In 2020, the enrolment rate decreased for the first time. Most likely, this is a temporary effect caused by school closures, thereby delaying the intake of new enrolment. The indicator can be further broken down by age group. The coverage for children 0–3 years of age attending nursery school was significantly lower (about 27%) than the coverage of children aged 4 years and above, who attended preschool (about 76%). Although significant progress has been made in the previous period in terms of coverage (at an average rate of around 3 percentage points per year), it is still significantly lower than in most EU countries (average coverage of children aged 4 to school in the 27 EU countries was in 2017 about 95 percent) and in relation to the EU target for 2020 (95%).

**A similar trend was recorded in GER in primary education, which increased by 5.2 percentage points from 93.6 percent to 98.8 percent in the observed period.** The highest value of GER was recorded in the first three grades of primary school, which during 2017–2020 was more than 100 percent due to the larger number of children enrolled in primary schools, some of whom were below but most of whom were above the right school age.

47 Due to limited population data by age, the number of live births was used for the total population by age (Source of data: Monstat).

**For secondary education, total GER increased during the analysed period from 78.3 percent to 83.7 percent.** This growth of total GER can be explained by the growth of enrolment in three-year secondary education (GER increased from 4.6 percent in 2015 to 13.1 percent in 2020) following the campaign for dual education in secondary schools. On the other hand, GER in four-year secondary education saw a relative decrease of 3.1 percentage points (from 73.6 percent to 70.5 percent), showing a spill-over in enrolment from four-year into three-year secondary education.

### 2.2.2 Net enrolment

**Like the GER, also the net enrolment ratio (NER) for both primary and secondary education increased during the period 2015–2020.**[48] The NER is the number of boys and girls of the official age group for a particular level of education who are enrolled in that level of education, expressed as a percentage of the total population in that age group. For primary education, the NER increased by 2.8 percentage points, meaning that, in relative terms, more children attend a class that fits their age category. It should be noted, though, that while the indicator increased in relative terms, the absolute number of children of the appropriate age to their grade actually decreased, due to a decrease in the total population.

***Table 2.2 Net enrolment rates in Montenegro, 2015–2020, %***

| NER | | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|
| Primary education | *Total* | 84.5 | 85.7 | 86.6 | 87.1 | 87.3 | 87.3 |
| | *Grades 1–3* | 85.6 | 87.6 | 90.6 | 92.6 | 89.8 | 88.1 |
| | *Grades 4–6* | 86.0 | 86.6 | 85.5 | 84.7 | 86.8 | 89.4 |
| | *Grades 7–9* | 82.2 | 82.9 | 83.8 | 84.5 | 85.5 | 84.4 |
| Secondary education | *Total* | 63.4 | 65.3 | 69.7 | 72.3 | 74.3 | 76.1 |
| | *Four-year* | 60.3 | 62.1 | 65.7 | 65.8 | 65.2 | 64.9 |
| | *Three-year* | 3.1 | 3.2 | 3.9 | 6.5 | 9.1 | 11.2 |

*Source: Calculations based on MEIS and Monstat data*

Similar to the case with primary education, there has been an increase in the NER in secondary education. The NER increased substantially from 63.4 percent to 76.1 percent in the period under review. In particular the NER for the three-year secondary education shows a high increase. As for primary education, these are relative improvements within the context of a decreasing number of absolute enrolment.

**The NER data shows that an increasing percentage of the student population attends classes appropriate to their age, although there is still a significant share that does not.** A sharp discrepancy between the GER and the NER indicates that enrolled children enter the first grade late or do not progress regularly through the grades, and that the system's internal efficiency could be improved. In this case, about 12.7 percent of primary school students in 2020 did not attend a class appropriate to their age; this percentage is significantly higher when it comes to secondary school students (23.9%). The reason for this situation is that there has been a cumulative effect over the years. The reasons can be different: later enrolment in primary education, repeating students with a later transition to secondary school, drop-out, etc. In Annex 4, the access rate (AR) is calculated, which is the NER corrected for the share of repeaters. Since the share of repeaters is relatively low in Montenegro, the conclusions of the NER and AR are in line.

48 There is no data available to calculate the NER for preschool education. 4

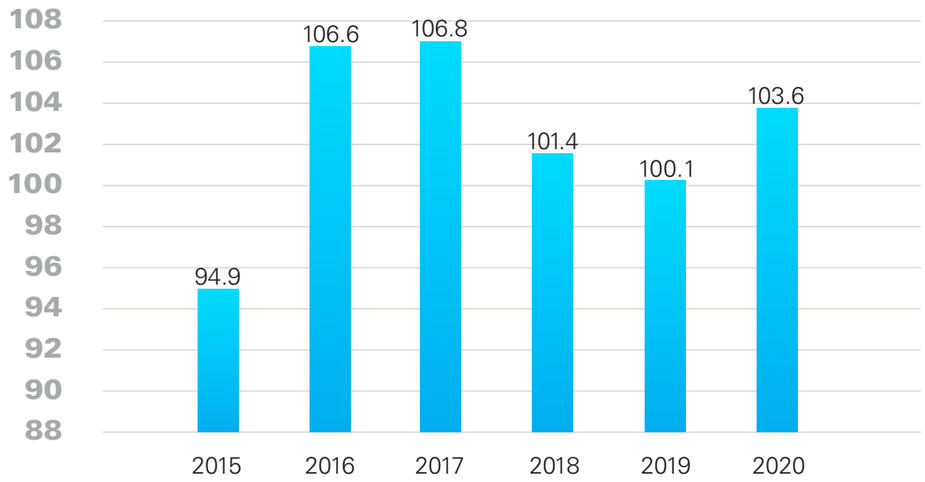




### 2.2.3 Gross intake

**In 2020, 14 percent of new entrants to the first grade of primary school were children who are over-age or under-age who were entering the first grade for the first time.** The issue of over- or under-aged school attendance is also clearly visible when looking at the gross intake rate (GIR). The GIR shows the total number of new entrants in the first grade of primary school, regardless of age, as a percentage of the population of official primary school access age.[49] During the observed period, the GIR recorded high values. In 2015, it amounted to 94.9 percent, while in the period 2016–2020 it was above 100 percent, which indicates a high degree of access to primary school.

***Figure 2.9 Gross intake rate in Montenegro 2015–2020***




*Source: Calculations based on MEIS and Monstat data*

**Interviews have revealed that over-age entrance is considered a bigger concern than under-age entrance**. This observation is confirmed by the 2018 MICS data, which indicates that 80 percent of children start primary school at the right age, 17 percent are 1 year older and 3 percent are a year younger than the official age.[50] This clearly indicates a demand issue that requires the assumption of a more proactive attitude by the educational system towards the parent population in order to understand and remove the underlying barriers and to promote timely enrolment in the first grade of primary school. Various research work has shown that the earlier children start their education, the greater their development outcomes.[51] Ideally, every child starts ECE at a young age. While Montenegro is not yet in a position to offer universal ECE, the intermediate measure to lower the age of compulsory primary education from 7 to 6 years supports the transition towards an earlier start.

49 UNICEF, Education Sector Analysis Methodological Guidelines, 78.

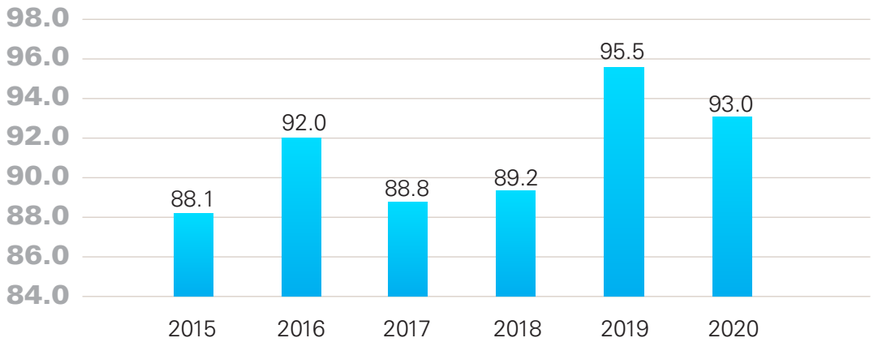
50 MICS, 2018.

51 UNICEF (2017). Improving Education Participation. Policy and Practice Pointers for Enrolling All Children and Adolescents in School and Preventing Dropout. UNICEF Series on Education Participation and Dropout Prevention, Volume 2. Geneva: UNICEF Regional Office for Central and Eastern Europe and the Commonwealth of Independent States.

## 2.2.4 Primary and secondary completion

**During 2015–2020, the primary completion rate (PCR) value varied.** The PCR is the ratio between the total number of pupils (non-repeaters) in the final grade of primary school and the population of official/theoretical primary graduation age. In fact, the PCR represents the access rate to the last grade of primary school.[52] After growth in 2016, the PCR fell in 2017 (88.8%) and increased again in 2019 (95.5%), followed by a small increase in 2020 (93.0%). The increase of the PCR during the analysed period and the high value of the PCR in 2019 indicate an increase in the percentage of children who entered primary school and completed it. Yet, the relative increase in the PCR in 2019 is also a consequence of a larger decrease in the absolute number of children in the official age group. In other words, there is no absolute improvement in the sense that more children completed primary education; the shown improvement is only a relative improvement, mainly caused by a decline of the number of children in the particular age group each year.

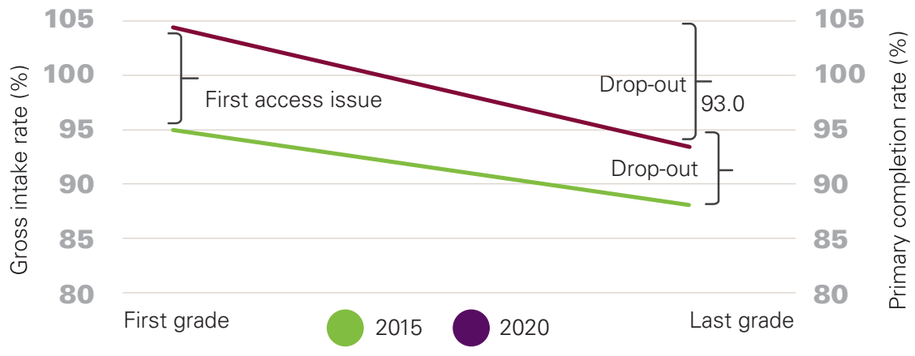
***Figure 2.10 Primary completion rate in Montenegro 2015–2020***




*Source: Calculations based on MEIS and Monstat data*

**Overall, both access to and completion of primary education improved during the period 2015–2020.** Figure 2.11 shows that, for 2015, the access rate in first grade amounted to 95 percent and the access rate in final grade amounted to 88 percent. In 2020, both indicators had improved with an access rate of (above) 100 percent in the first grade and 93 percent in the final grade.

***Figure 2.11 Schematic representation of the schooling profile, 2015 and 2020***




52 Data limitations preclude adjusting for students who drop out during the final year of primary education.

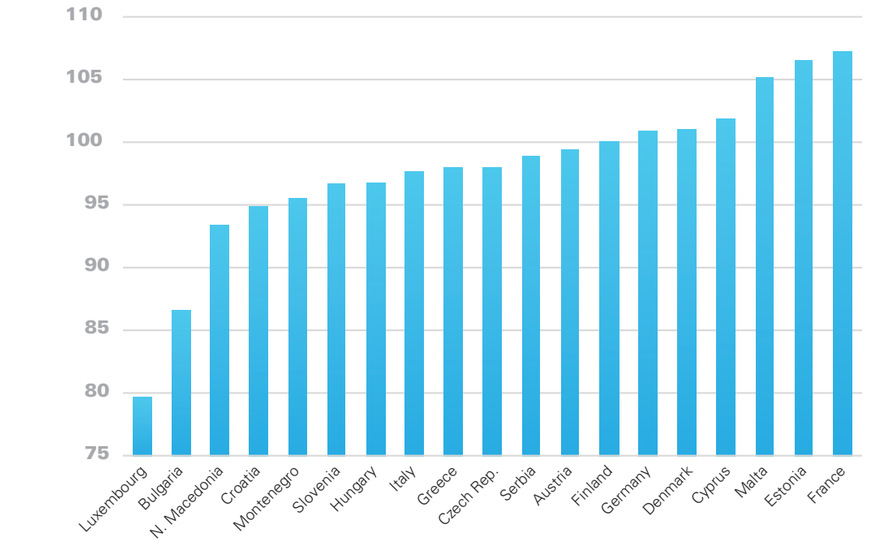




**The share of pupils dropping out improved during the period 2015–2019. Although there were still children that drop out of primary education, their numbers reduced. The year 2020 is the first year where there is an increase in the drop-out rate, which is mostly likely explained by the impact of COVID-19.** The gross intake rate in 2020 is above 100 percent, which indicates high access to the first grade (although this does not necessarily mean that all children enrolled in primary education). Access issues can still exist for a number of children. The PCR amounted to 93 percent in 2020, compared to 88 percent in 2015, which indicates good progress but also a continued need to focus education policy on retaining students in school.

**Internationally, Montenegro is performing above average on the primary completion rate.** When we compare the results of the Montenegrin PCR with the last available PCR from 2018 in a large number of EU countries, as well as in several countries in the region, we can conclude that the Montenegrin PCR is very similar to the results achieved by Croatia, Slovenia, Hungary, Italy and Greece. The world average in 119 countries in 2018 was 93.22 percent and it is obvious that the Montenegrin result is slightly above the world average.

***Figure 2.12 Comparison of primary completion rates****




*Source: MEIS and Data.WorldBank.org*

** The percentage of all children enrolled in primary school who enter the last grade of primary school can exceed 100 percent due to over-age and under-age children who enter primary school late/early and/or repeat grades. This is exactly what is happening in the case of Denmark, Cyprus, Malta, Estonia and France.*
*** There is no data available for Bosnia and Herzegovina and Kosovo.*

For secondary education, the completion rate is more complex to determine because: a) secondary education is not compulsory; and b) the available absolute number of students need to be linked to the two-, three- or four-year pathways of secondary education. The MICS 2018, however, suggests a lower-secondary completion rate of 94.7 percent and 86.2 percent for upper-secondary education.[53] These findings are in line with the findings on school life expectancy, presented in the next section.

53 MICS 2018, Table LN 2.7.

### 2.2.5 School life expectancy

**Children in Montenegro had an average school life expectancy (SLE) of 8.90 years in primary education and 3.35 years in secondary education in 2020, which is 0.74 years higher than in 2015.** School life expectancy (SLE) is an indicator used to provide an aggregate measure of the level of coverage provided by the education system. The SLE is obtained as the average of the numbers of years completed, weighted by the respective proportions of the cohort. To be more practical, a simplified formula is used to obtain the SLE, computing the sum of the access rates to each grade.[54] Hence, the SLE is calculated for primary and secondary education in Montenegro, as well as the total SLE for primary–secondary education. Summing up the access rates provides information on the duration of education that a child in Montenegro can expect to complete in the prevailing conditions offered by the Montenegrin education system. A relatively high SLE for primary–secondary education indicates a greater probability that children will spend more years in education and that there will be higher overall retention within the Montenegrin education system.

***Table 2.3 School life expectancy in Montenegro 2015–2020***

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|
| Primary education | 8.39 | 8.54 | 8.67 | 8.76 | 8.84 | 8.90 |
| Secondary education | 3.12 | 3.07 | 3.17 | 3.21 | 3.27 | 3.35 |
| ***Total primary–secondary*** | ***11.51*** | ***11.61*** | ***11.85*** | ***11.97*** | ***12.19*** | ***12.25*** |

**The SLE for both primary and secondary education is closing in on the expected number of years.** Data on SLE for primary education shows that the number of years does not coincide with the expected number of nine years (grades), but has seen an upwards trend, moving close to nine. The difference might be explained by repetition or by the number of children who never go to school or who drop out. Thus, the SLE for primary education is slightly lower than the expected number of grades. Although secondary education is not mandatory in Montenegro, the SLE for secondary education is not much lower than the number of grades. This data is consistent in showing a relatively high numbers of students engaging with the education system beyond primary education.

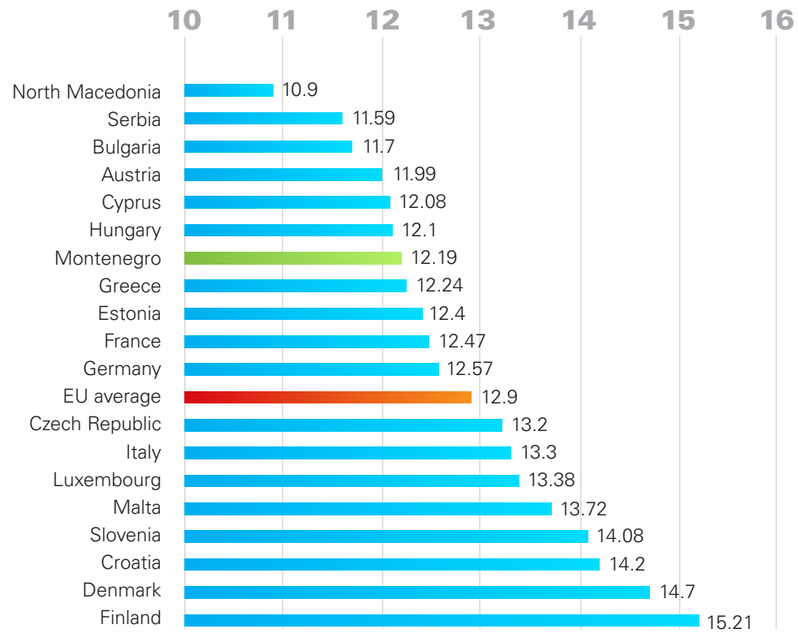
Figure 2.13 shows that Montenegro is achieving a better SLE even compared to some EU member states (Hungary, Cyprus, Austria, etc.) and that the score of 12.19 is very close to the European average SLE (12.9). From the comparative analysis, it is also clear that countries with education systems that are considered among the best in the world – Finland and Denmark – are achieving the best scores when it comes to the average length of an individual's schooling. The lowest results in SLE are achieved by countries in the region – Bulgaria, Serbia and North Macedonia – while Bosnia & Herzegovina and Kosovo do not have this kind of analytical data.

54 UNICEF, Education Sector Analysis Methodological Guidelines, 84.





***Figure 2.13 International comparison of school life expectancy in primary, lower- and upper-secondary education 2017/2018***




*Source: MEIS and DataWorldBank.org*

## 2.3 Internal efficiency

Internal efficiency measures the degree to which children who begin the education cycle complete it (i.e. do not drop out), and do so in the set number of years (i.e. do not repeat). Internal efficiency in this analysis focuses on primary and secondary education only. Key indicators include: the repetition rate, the promotion rate, transition rate and the survival rate, which are analysed and explained below and summarized in the internal efficiency coefficient.

### 2.3.1 Repetition

**There is a very small percentage of repeaters at both levels of education – primary and secondary school.** As is the case with effective promotion rates in grades, the repetition rate indicates the internal efficiency of the education system. International research on repetition, carried out over a decade, has reached the following four findings that examine the effect of overly high repetition rates on the education system: a) the decision to oblige a student to repeat a year is not always fair; b) the impact of repetition on learning achievements is not empirically proven; c) there is a significant negative effect on students who drop out; and d) costs are affected.[55] As such, the Law on General Education prevents students in grades 1 to 4 from repeating the grade. Notwithstanding, a student may repeat a class if the student has not mastered the curriculum in such a way as to be able to continue their education.

55 ESA guidelines, 102.

**During the period 2015–2019, the share of repeaters in primary school decreased from 0.56 percent to 0.28 percent. In 2020, the share of repeaters was even lower, probably because of more lenient criteria.** The share of repeaters is calculated as the percentage of number of repeaters out of the total enrolment, and is an indicator to measure the internal efficiency of the education system. Observed by grades, and disregarding 2020 as a less representative year, the share of repeaters was highest for the 7th grade (0.68%) and 6th grade (0.52%) in 2019, with the lowest value in the final grade (0.04% in 2019).

***Table 2.4 Share of repeaters in primary education, by grade 2015–2020***

| Grade | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|
| ***1*** | 0.58 | 0.18 | 0.04 | 0.04 | 0.39 | 0.10 |
| ***2*** | 0.59 | 0.44 | 0.08 | 0.08 | 0.08 | 0.07 |
| ***3*** | 0.87 | 0.63 | 0.59 | 0.23 | 0.17 | 0.07 |
| ***4*** | 0.67 | 0.70 | 0.40 | 0.15 | 0.14 | 0.17 |
| ***5*** | 0.49 | 0.52 | 0.47 | 0.10 | 0.21 | 0.15 |
| ***6*** | 0.85 | 0.93 | 0.88 | 0.49 | 0.52 | 0.07 |
| ***7*** | 0.50 | 0.53 | 0.36 | 0.34 | 0.68 | 0.08 |
| ***8*** | 0.44 | 0.60 | 0.52 | 0.35 | 0.26 | 0.01 |
| ***9*** | 0.08 | 0.17 | 0.22 | 0.09 | 0.04 | 0.00 |
| ***1–3*** | 0.68 | 0.41 | 0.24 | 0.12 | 0.21 | 0.08 |
| ***4–6*** | 0.67 | 0.72 | 0.57 | 0.24 | 0.29 | 0.13 |
| ***7–9*** | 0.34 | 0.43 | 0.37 | 0.26 | 0.33 | 0.03 |
| ***Total*** | **0.56** | **0.52** | **0.39** | **0.21** | **0.28** | **0.08** |

*Source: Calculations based on MEIS and Monstat data*

A decreasing trend in the percentage of repeaters in the period from 2015 to 2019 is especially noticeable; and in the last analysed year (2019) it is below 0.7 percent in all grades of primary and secondary school. This clearly implies that the Montenegrin education system follows the findings of scientific research regarding grade repetition.

**Similar trends have been recorded for secondary education, where the share of repeaters decreased from 2015 to 2019 with 0.15 percentage points (from 0.37% to 0.22%). During 2020, there were hardly any repeaters.** This indicator is higher for three-year courses than for four-year courses, while the highest share of repeaters is for first year students (in both courses).

***Table 2.5 Share of repeaters: three- and four-year secondary education (%)***

| Course | Grade | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|
| **Four-year secondary education** | 1 | 0.64 | 0.60 | 0.49 | 0.33 | 0.49 | 0.09 |
| | 2 | 0.31 | 0.12 | 0.31 | 0.22 | 0.23 | 0.04 |
| | 3 | 0.22 | 0.13 | 0.16 | 0.15 | 0.06 | 0.00 |
| | 4 | 0.00 | 0.00 | 0.13 | 0.02 | 0.02 | 0.00 |
| | *Total* | *0.29* | *0.22* | *0.28* | *0.18* | *0.18* | *0.03* |
| **Three-year secondary education** | 1 | 3.44 | 3.87 | 1.90 | 1.54 | 0.71 | 0.22 |
| | 2 | 1.07 | 0.75 | 0.70 | 0.90 | 0.28 | 0.07 |
| | 3 | 0.17 | 0.23 | 0.00 | 0.37 | 0.00 | 0.00 |
| | *Total* | *1.62* | *1.86* | *1.00* | *1.16* | *0.42* | *0.09* |
| *Share of repeaters – total* | | *0.37* | *0.32* | *0.32* | *0.28* | *0.22* | *0.04* |

*Source: Calculations based on MEIS and Monstat data*



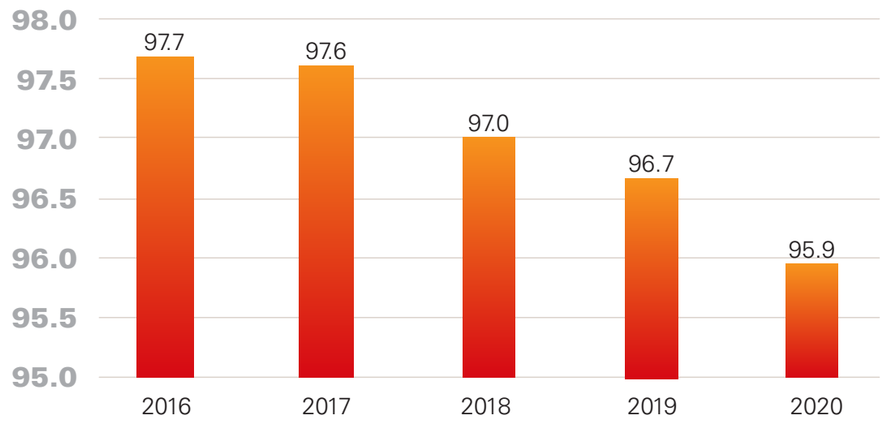


In Annex 4, the effective promotion rate (EPR) has been calculated, which is the number of non-repeaters enrolled in a given grade and for the given year and total enrolment of non-repeaters in the previous grade and previous year. Since the numbers of repeaters are relatively small, the EPR reinforces the above conclusion.

### 2.3.2 Transition between education levels

**The transition from primary education to secondary education is high, with more than 96 percent of children having transitioned to secondary education since 2016, but there is an ongoing downward trend in the transition rate**. The degree of access or transition to secondary education is calculated by the effective transition rate (TR) between two cycles. Hence, the calculated TR for a specific year indicates the number of students admitted to the first grade of secondary education in Montenegro in that year, expressed as a percentage of the number of students enrolled in the final grade of the primary education in the previous year. The transition from primary to secondary education has amounted to around 96 to 98 percent during recent years, but with a declining share through the years.

***Figure 2.14 Transition rate in Montenegro (%), 2016–2020****




*Source: Calculations based on MEIS and Monstat data*
** Data for 2015 is not available*

### 2.3.3 Survival rate

**The majority of children that enter primary education also complete primary education; nonetheless the survival rate (SR) suggests a drop-out rate of about 3 to 4 percent.** The survival rate to the last grade is the percentage of the cohort of students who enter the first grade of primary education and who are expected to reach the last grade, regardless of repetition. For the purpose of this research, survival grades to each grade of both primary and secondary education are calculated. Rates approaching 100 percent indicate a high level of retention and low incidence of drop-out. Despite some limitations of this indicator, it can be used to provide approximate values of drop-out within an educational system. Hence, it can be assessed that the retention of students from grade to grade in primary schools is high. Based on these figures, the number of pupils dropping out in primary education is about three to five students per 100 students.

***Table 2.6 Survival rates to grades in primary education (in %), 2016–2019****

| Grade | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|
| **1** | 100.00 | 100.00 | 100.00 | 100.00 |
| **2** | 99.33 | 99.50 | 99.57 | 99.58 |
| **3** | 98.95 | 99.59 | 98.95 | 99.13 |
| **4** | 98.60 | 99.34 | 98.45 | 98.80 |
| **5** | 97.90 | 99.07 | 98.05 | 98.73 |
| **6** | 97.34 | 98.94 | 97.70 | 98.43 |
| **7** | 96.59 | 98.57 | 97.19 | 97.75 |
| **8** | 95.99 | 97.97 | 96.66 | 97.26 |
| **9** | 95.01 | 97.37 | 95.90 | 96.77 |

*Source: CalculaCalculations based on MEIS and Monstat data*

** Data for 2015 and 2020 is not available*

**Survival rates for secondary education are, to some extent, lower than for primary education.** This is particularly visible for three-year secondary education. The survival rate to the last grade in the three-year education cycle is below 90 percent (with exception of 2016), which indicates that more than one tenth of the enrolled students do not finish it. The situation is slightly better when it comes to four-year secondary education, where survival rates have amounted to 93 to 94 percent during recent years.

***Table 2.7 Survival rates to grades in secondary education (in %), 2016–2019****

| Course | Grade | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| **Four-year secondary education** | *1* | 100.00 | 100.00 | 100.00 | 100.00 |
| | *2* | 97.30 | 97.28 | 97.08 | 98.22 |
| | *3* | 94.43 | 94.31 | 94.34 | 95.53 |
| | *4* | 92.93 | 93.40 | 92.64 | 93.83 |
| **Three-year secondary education** | *1* | 100.00 | 100.00 | 100.00 | 100.00 |
| | *2* | 92.74 | 94.44 | 94.13 | 92.97 |
| | *3* | 90.67 | 89.20 | 89.23 | 88.19 |

*Source: Calculations based on MEIS and Monstat data*

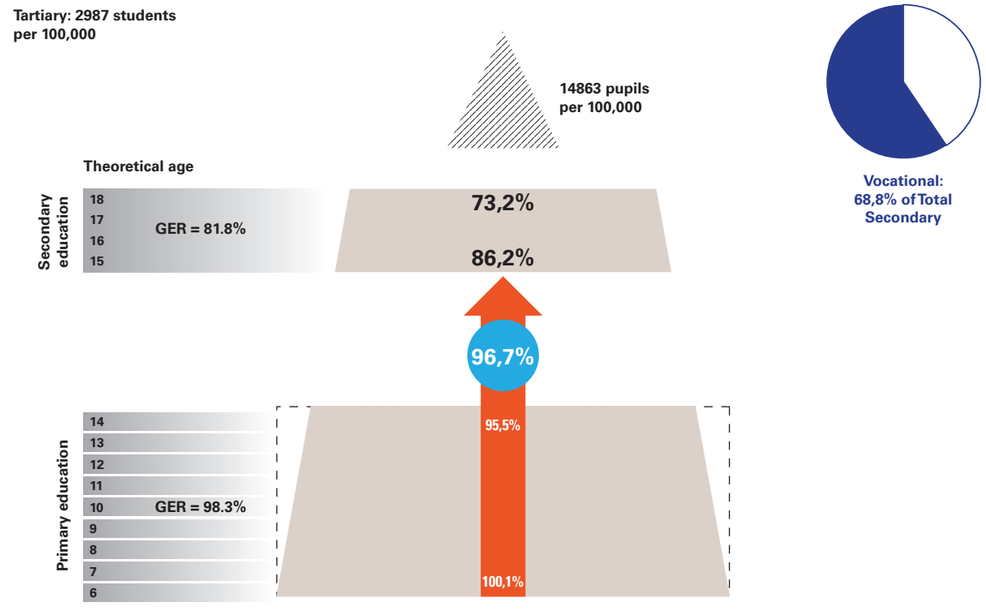
** Data for 2015 and 2020 is not available*

The internal efficiency indicators for 2019 have been summarized in an educational pyramid showing overall intake, completion and transition rates.





***Figure 2.15 Educational pyramid Montenegro, 2019***




## 2.3.4 Internal efficiency coefficient

The internal efficiency coefficient is one of the most important indicators of internal efficiency. All education systems tend to increase internal efficiency, i.e. to increase the share of children who complete a cycle without repeating a year.[56] The internal efficiency coefficient (IEC) is the ratio between the theoretical number of pupil years required to educate a pupil and the effective average number of pupil-years invested.[57] This ratio in an ideal situation should be equal to one, which means that the theoretical duration of a cycle and the average number of pupil-years effectively invested is equal, or that there was no repetition or dropping out. On the other hand, the opposite extreme (a value of zero) means that there are no pupils who have completed the cycle.

**The IEC results show that the theoretical duration of the primary education cycle varied between 96.7 percent and 98.0 percent of the effective average number of pupil-years required to complete the cycle.** This means that 2.0 to 3.3 percent of the pupil-years invested correspond to repetition- and dropout-related inefficiency.

***Table 2.8 IEC for primary education***

| Year | IEC |
|---|---|
| 2016 | 0.967 |
| 2017 | 0.980 |
| 2018 | 0.976 |
| 2019 | 0.980 |

*Source: Calculations based on MEIS and Monstat data*

56 UNICEF, Education Sector Analysis Methodological Guidelines, 107–108.

57 UNICEF, Education Sector Analysis Methodological Guidelines, 107.

**Again, the situation is less favourable when it comes to secondary education, with values between 92.9 percent and 96.5 percent.** The IEC for the four-year cycle shows that the theoretical duration of this cycle during recent years was approximately 96.5 percent of the effective average number of pupil-years required to complete the cycle. Hence, 3.5 percent of the pupil-years invested correspond to repetition- and dropout-related inefficiency. The worst situation according to the IEC is related to the three-year education cycle. The IEC for this cycle varied between 92.9 percent and 94.2 percent, which indicates that approximately 6 to 7 percent of the pupil-years invested correspond to repetition- and dropout-related inefficiency

***Table 2.9 IEC for secondary education***

| Year | IEC secondary (four-year) education | IEC secondary (three-year) education |
|---|---|---|
| *2016* | 0.964 | 0.942 |
| *2017* | 0.968 | 0.934 |
| *2018* | 0.963 | 0.929 |
| *2019* | 0.967 | 0.937 |

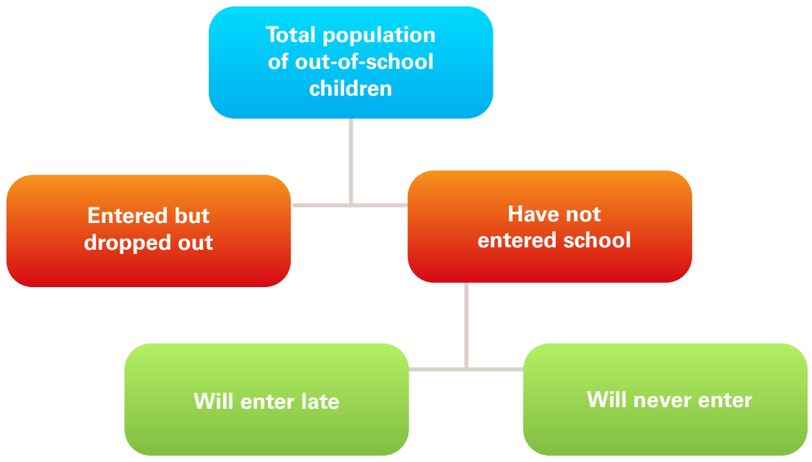
*Source: Calculations based on MEIS and Monstat data*

## 2.4 Out-of-school children

### Current situation with OOSC

The reasons for being out-of-school, the chances of these students returning to school and the amount of time spent in school before dropping out vary greatly among out-of-school children. As shown in Figure 2.16 below, OOSC can be divided into certain distinct groups, clarifying the differences between them. However, not all OOSC can be accounted for; the most difficult category is those children who have never attended school and are not registered in any government database, such as undocumented refugees. In addition, there may be children who are statistically considered to be in school, but are regularly absent or at risk of dropping out completely.

***Figure 2.16 Classification of the out-of-school population, by school exposure.***




*Source: OOSCI operational manual, UIS, 2015*





As such, calculating the percentage of OOSC is not straightforward. The indicators used are the generation access rate (GAR) and the adjusted net enrolment rate (ANER). The net enrolment rate is not a useful indicator due to the significant portion of the population who start primary school earlier or later than the prescribed age. This can be overcome by using other indicators such as the generation access rate and the adjusted net enrolment rate (ANER).

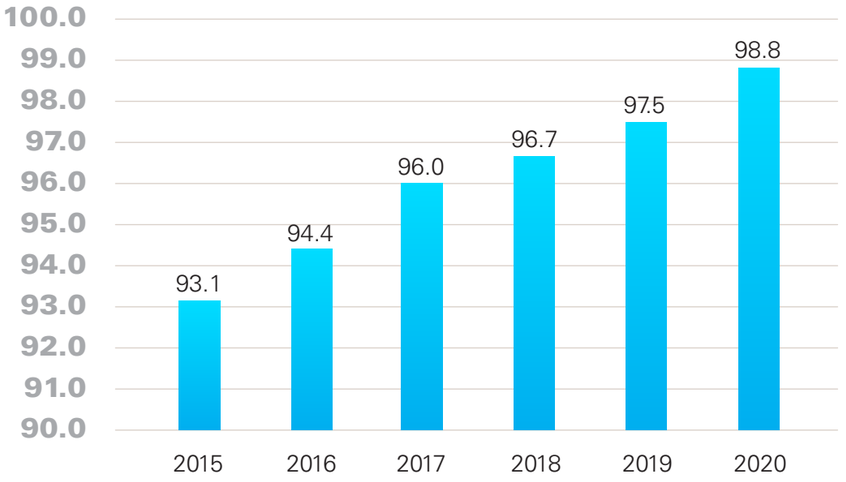
### Generation access rate (GAR)

The generation access rate can be observed as the probability of an individual accessing school, expressed as the maximum proportion, amongst age groups, of individuals who have had access to school.[58] The highest school attendance rate in 2020 was for children aged 8 to 10 years and this amounted to 101.5 percent. This percentage shows that (almost) all younger children are expected to access school at some point.

### Adjusted net enrolment rate (ANER)

The adjusted net enrolment rate is calculated by the number of primary-school-aged children enrolled in primary and secondary education, divided by the total number of primary-school-aged children.[59] The number of out-of-school children can also be computed with the help of administrative school data. In Figure 2.17, the ANER is calculated for the period 2015–2020.

***Figure 2.17 Adjusted net enrolment rates***




*Source: Calculations based on MEIS and MONSTAT data*

The ANER shows a continual increase over the observed period. It increased from 93.1 percent in 2015 to the 98.8 percent in 2020. This shows that, at the national level, a growing percentage of children in the official primary school age range are enrolled in either primary or secondary education.

58 UNICEF, Education Sector Analysis Methodological Guidelines, 113.
59 Ibid, 112.

## 2.5 Conclusions and recommendations

This chapter provides an overview of the efficiency and quantitative performance of Montenegro's education sector. Operational performance indicators show that Montenegro's education system has made impressive improvements in terms of enrolment and the completion rate. Yet, at the same time Montenegro faces a serious mismatch in the demand and supply of school infrastructure, which is further intensified by demographic changes.

**Early childhood education –** During the period 2015–2020, gross enrolment increased for all levels of education, but mostly for ECE. For pre-primary education, covering children from 4 years old, the GER increased from 64.4 percent in 2015 to 75.7 percent in 2020, indicating substantial growth in the number of children who are enrolled in preschool education. Yet, the coverage is still far below the EU average which stood at 92.8 percent in 2019.[60] *It is recommended that the Education Sector Plan include a longer-term vision on different models to increase ECE enrolment in an affordable way, including a proper assessment of infrastructure constraints and group-size norms.*

While kindergarten capacity for ECE has improved considerably in the last decade, as has enrolment, more capacity is needed for a further increase in enrolment. On average, ECE groups are operating above the normative group size. Data shows that additional ECE capacity has resulted in extra enrolment, but has had a limited impact on lowering the average group sizes, which are still too high and above the normative values. This means that the extra capacity has facilitated extra enrolment, but has not been used to reduce the average group size. There are, however, regional differences to be taken into account and the situation is most severe in the central region. These conclusions are based on the data for average group size per municipality. No complete overview of ECE school infrastructure is available. Therefore, more data and research are needed to draw more precise conclusions on the exact ECE infrastructure needs and to provide evidence for future planning, which has been planned in the current Strategy for Early and Preschool Education.

**Primary education** – Overall, both access to and completion of primary education have improved during the period 2015–2020. Also, the share of pupils dropping out has decreased. Although there are still children that drop out of primary education, their numbers have reduced. The data for net enrolment shows that an increasing percentage of the student population attends classes appropriate to their age, although there is still a significant share that do not. **Based on Monstat data, approximately 13 percent of new entrants in 2020 to the first grade of primary school were children who belonged to a different age group (mostly over-age) when entering the first grade for the first time.** This requires a more proactive attitude from the educational system towards the parent population in order to understand and remove the underlying barriers and to promote timely enrolment in the first grade of primary school. *It is recommended that the Education Sector Plan incorporate effective awareness-raising campaigns for the entire population and, in particular, parents with a disadvantaged background, about the importance of early education and specifically to promote starting education at the right age.*

60 *Education and Training Monitor 2021.* https://op.europa.eu/webpub/eac/education-and-training-monitor-2021/en/chapters/chapter2.html#ch2-3.





Of the highest priority, however, is to better analyse and address the primary education infrastructure concerns. The analysis found that there is a broad variance in the pupil–classroom ratio with extremes on either side. The number of school units operating below their maximum capacity is much larger than the number of schools that are encountering higher demand than their physical capacity. Yet, two out of three children in Montenegro are in primary schools where the physical infrastructure is insufficient. That is because the 13 percent of school units that are operating above the norm of 28 pupils per classroom accommodate 67 percent of all the primary students, whereas the remaining 87 percent of school units only house 28 percent of the children. Hence, most children in Montenegro are facing a situation in school where they are either in (very) small classes or where classes become so big that the school opts for organizing classes in double or occasionally even triple shifts.

*For the Education Sector Plan, it should be a priority to carry out a mapping of the existing school infrastructure to ensure maximum efficiency in resource utilization and best benefits for the students.* The mapping could make an inventory of which schools are underutilized and for what reasons. Some of those schools with a low demand may be kept operational for justifiable socio-political reasons, e.g. to guarantee all children in Montenegro the right to education even in low-populated areas. Others may, however, have lower enrolment because of (perceived) low quality. This mapping could identify and explore if there are any underutilized schools within reach of overcrowded schools that can be repurposed by rehabilitation works, transport measures, curriculum adaptions, etc. Other options include an analysis of how cooperation between schools can be improved to facilitate a better distribution of students. For any future investments in new infrastructure, demographic projections should be considered, as well as a possible alignment with broader multi-sector regional development plans.

**Secondary education –** Even though secondary education is not compulsory, the performance indicators show positive trends. Transition rates are high and also the average school life expectancy (SLE) of secondary education improved from 3.12 years in 2015 to 3.35 years in 2020. The fact that the SLE is closing in on the expected number of years also suggests improving completion rates. Yet, survival rates for secondary education are, to some extent, lower than for primary education. This is particularly visible for three-year secondary education. The survival rate to the last grade in the three-year education cycle is below 90 percent, which indicates that more than one tenth of the enrolled students in this kind of education do not finish it. The situation is slightly better when it comes to four-year secondary education, where survival rates have amounted to 93 to 94 percent during recent years. *For the Education Sector Plan, it is recommended to establish a vision on how to make secondary education compulsory in the future. Together with a better connection to labour market demands (as discussed in Chapter 1), compulsory secondary education can improve the new generation's employability.*

For secondary education, the school infrastructure issue is less extreme, although also at this level there is a systematic mismatch, and it is of the highest importance to address this in the Education Sector Plan along similar lines as for primary education.


# 3 Quality, system capacity and management

## 3.1 Quality and system capacity

This chapter examines to what extent the Montenegrin education system is fostering the acquisition of knowledge and skills as envisaged by relevant startegic and legislative frameworks. Section 3.1 starts with an overview of the current environment and recent developments regarding the provision of quality education. In Section 3.2, we assess what learning outcomes have been achieved, how the learning outcomes compare with those of other countries and how learning outcomes have evolved over recent years. Section 3.3 analyses the education system's capacities and their relationship with student learning outcomes and, lastly, in Section 3.4, the quantitative and qualitative aspects of teacher management is explored.

**Background and ongoing developments**

**The quality of education is a strategically important area of education development in Montenegro, and in the last two decades various improvements have been introduced into its education system**. Throughout the last 20 years, the education system in Montenegro has introduced a range of well-designed quality-oriented policy measures (ranging from curriculum reforms to external high school graduation examinations, external school evaluation, and international learning outcome assessments, as well as measures for upgrading the teaching profession), invested into developing institutional and human capacities with the aim of improving quality and inclusiveness, and a full set of strategies and legislation guiding the everyday practice and development of education. It has to be noted, however that, at the strategy and data production levels, fragmentations are visible. For example, Montenegro does not have an overarching strategy for education development encompassing all levels and types of education and for creating synergies between them. Instead, separate strategies have been developed for each education level.

Montenegro uses a network of well-designed institutions and evaluation measures, all serving the need for quality improvements in education. A functional education information system and the capacity to produce and store ample data about schools, teachers, students, learning outcomes, etc. have been established. The results presented in this chapter will shed some light on the inefficiencies in this developed landscape of quality assurance mechanisms, and recommend targeted improvements.

Montenegro has been working on the modernization of its curriculum for the past 20 years, in parallel with restructuring the education cycles and increasing the number of compulsory education years – from eight to nine years. The school education system in Montenegro has moved from a traditional content-oriented curriculum to a contemporary learning-outcome and competency-oriented one, through several steps. During this process, after the first major curriculum reform in 2000–2004, a connection to the Key Competencies for the 21st Century was ensured, but also the scope of the curriculum (2013) was reduced, as well as the number of teaching hours in primary education (2017). According to data gathered through interviews with stakeholders conducted for the purpose of the Analysis, these changes have been more

beneficial for some areas (i.e. early foreign language learning) than for other education areas in primary education (i.e. STEM subjects, civic education). Despite the curriculum reforms, transversal competences, such as problem solving, information literacy, collaboration, responsible decision making, self-regulation, citizenship and healthy lifestyles, are still not fully translated into the general education curriculum.[61] The learning outcomes of the curriculum clearly show anomalies, originating from, among other things, gaps in the implementation of the curriculum and gaps in the curriculum itself.

Classroom assessment must follow the changes in the curriculum, especially if these are essential in their nature, in order to make sure that change in classroom practice is to happen. A competency-oriented curriculum requires the modernization of assessment practices by introducing formative assessment instead of and/or in addition to summative assessment, providing clear guidance to teachers about the criteria for marking in order to ensure that marks are not subjective or biased, and providing feedback to students in order to inform their learning. Most of these innovations have been required already based on the PISA 2015 results.[62] These, however, have not yet happened – according to opinions aired in interviews, classroom assessment is the most neglected area of education reforms so far. Currently only a fairly general sublegal act on assessment[63] has been adopted, delineating the types, functions, general criteria and ways of implementing assessment in primary education, but the training for its implementation, as well as publication of a detailed guidebook for teachers[64] including a plan for monitoring student achievements, have stalled.

In parallel with the reforms in general education, vocational education and training underwent major reforms and were substantially modernized and reorganized. Partnerships with employers have been established with the aim of better meeting the needs of the economy; the National Qualifications Framework was developed (2010); the referencing of Montenegrin qualifications with the EQF was completed (2014); procedures and standards for the acknowledgement of non-formal and informal learning were established (2008). Modularized curricula, based on occupational standards and professional competencies, oriented to learning outcomes and connecting theoretical and practical education were prepared and implemented with teacher preparations for 65 new profiles up until now, out of the approximately 80 planned in total.[65] The inclusiveness of vocational education has been improved through the adaptation and modularization of certain educational programmes. Horizontal and vertical mobility was strengthened, ensuring that no education track ends without the possibility of further learning and an elaborate school-leaving professional examination was implemented and harmonized with the high school graduation exam in terms of its complexity. Dual education was also introduced in 2017.

61 Pesikan, A. & Lalovic, Z. (2017). Education for life: Key 21st-century competencies in curricula in Montenegro. Podgorica: UNICEF Montenegro.

62 Nikolic-Vucinic A. et al. (2019). PISA 2015 results and policy recommendations. Podgorica: Ministry of Education of Montenegro and UNICEF.

63 Rulebook on the ways of assessing students in primary school. Official Gazette of Montenegro, 062/19.

64 Lalovic, Z. (in press). Assessment serving the development of students and the advancement of teaching and learning in schools. Guidebook. Podgorica: Bureau for Education.

65 These developments were supported by IPA projects, for example the project "Development of qualifications in accordance with the needs of the labour market". The first cohorts educated through these educational programmes were due to complete their education in 2021, and the effects are yet to be recognized.





A number of major policy measures have improved the quality of support for early childhood development.[66]

New programmes tailored to the needs of children and families have been introduced, reaching those who were not previously covered; a continuous, cooperative and participatory programme of transition from kindergarten to primary school has been introduced; cooperation with parents has been strengthened; and in several municipalities a parenting programme has been implemented. The number of educators and other members of staff has been increased by one third in the previous five years.[67] Networks of practitioners have been established. Monitoring of the development of children from the beginning of their preschool education to their enrolment in primary school now takes place through the Child Development Portfolio. Clearer and simplified licensing procedures for kindergartens have been introduced. Continuous advisory visits to preschool institutions and coaching activities are carried out in order to provide the necessary support to both institutions and their employees. A support system for the implementation of the portfolio for monitoring children's development has been established as well.[68]

At the same time, higher education was also realigned in accordance with the Bologna process, including introducing a three-tier system, quality assurance mechanisms and curriculum reform. University teacher education programmes were also changed – more details are presented in Section 3.4.

## 3.2 Assessment of student learning

### 3.2.1 Student achievements in international studies

Montenegro participates in several international assessments of learning outcomes that are conducted in Montenegro by the Examination Centre:

- The OECD has been conducting the Programme of International Student Assessment (PISA) already for 14 years (since 2006);
- It has been conducting the Trends in International Mathematics and Science Study (TIMSS) since 2019;
- It is also preparing to participate in 2021 in the PIRLS – *Progress in International Reading Literacy Study*, also conducted by the International Association for the Evaluation of Educational Achievements (IEA).

#### 3.2.1.1 Student achievements in PISA 2018

Throughout the five cycles[69] that Montenegro has participated in PISA thus far, the results have shown continuous improvements in learning outcomes, but they are still far below the OECD average in all three areas tested in PISA – reading, mathematics and science. Students in general secondary school have the highest scores.

66 Draft Strategy for Early Child Education in Montenegro 2012–2024.

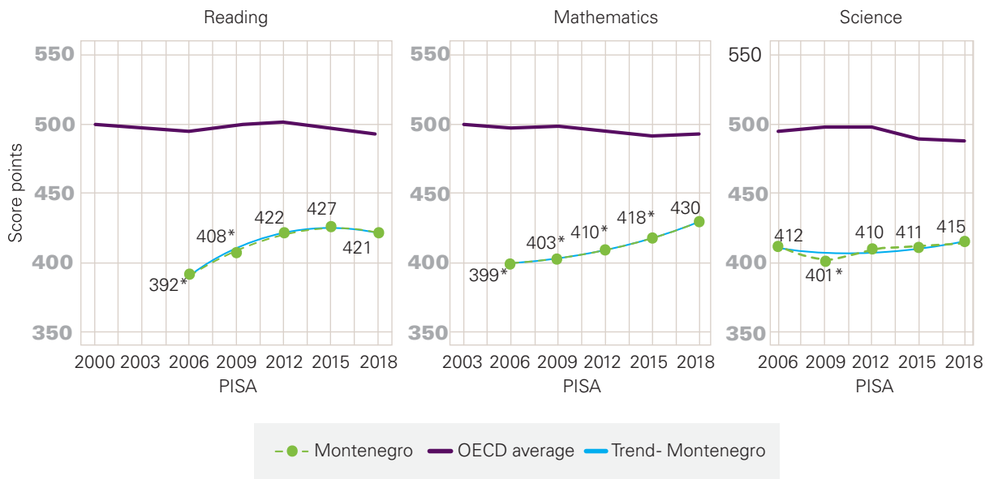
67 Draft Strategy for Preschool Education 2020–2025.

68 MPS Crne Gore, Izvještaj o sprovođenju strategije ranog i predškolskog vaspitanja i obrazovanja u Crnoj Gori 2016–2020.

69 Montenegro participated in PISA 2006, 2009, 2012, 2015 and 2018.

The PISA sample consists of 15-year-olds.[70] In 2018, 6,666 Montenegrin students participated in the PISA examination.[71] Montenegro's performance in reading, mathematics and science across time, compared to OECD average scores, is presented in Figure 3.1.

***Figure 3.1 Montenegro's performance in five PISA cycles***




**Indicates mean performance that is statistically significantly below PISA 2018 for Montenegro. The purple line indicates the average mean performance across OECD countries with valid data in all PISA assessments. The green dotted line indicates mean performance in Montenegro. The blue line represents a trend line for Montenegro (line of best fit). Source: OECD, PISA 2018 Database, Tables I. B1.10, I. B1.11 and I. B1.12. , as presented in OECD's Country Note for Montenegro*[72]

The PISA 2018 results in Montenegro are significantly higher than in 2015 only in mathematics. In reading, progress was evident in the first cycles of testing, and in science the trend is flat. The difference compared to the OECD average in 2018 is still very high, indicating that students in Montenegro lag behind the OECD average by around 80 points in reading and science, and somewhat less in mathematics.[73] Another disturbing recurrent finding from PISA in Montenegro is the distribution of scores across proficiency levels. Overall, almost half of the students in Montenegro continuously score below the lowest levels of proficiency in all three domains, while the percentage of high achievers is negligible.

70 The sample for PISA is between 5,000 and 7,000 students from each country, who are between 15 years 3 months and 16 years 2 months old. In 2018, 6,666 Montenegrin students participated in the PISA examination, which constitutes 95 percent of the student population of the same cohort in Montenegro, rendering the PISA a population and not a sample-based test, which allows additional policy-relevant inferences from the results. Of the sample, 97.3 percent of students were drawn from 51 upper-secondary schools and the rest from 15 compulsory schools' ninth grade.

71 It has to be noted that almost 20 percent of the cohort was not enrolled in secondary education in 2018 and is not taken into account in PISA (for further details see Chapter 4 on equity).

72 https://www.oecd.org/pisa/publications/PISA2018_CN_MNE.pdf.

73 A difference of 80 points could be, with some caution, also interpreted as the effect of two years of schooling (PISA 2015 results and education policy recommendations, 2019. UNICEF Country Office in Montenegro & Ministry of Education of Montenegro).





PISA is also a reference point for education and training monitoring in the member states of the EU and for countries in the process of accession – a benchmark of no more than 15 percent of students below level 2[74] in reading, mathematics and science was set as target for 2020.[75] Table 3.1 captures some of the most informative results.

***Table 3.1 Percentage of students in PISA 2018 at different proficiency levels in the three tested domains in Montenegro compared with the OECD average***

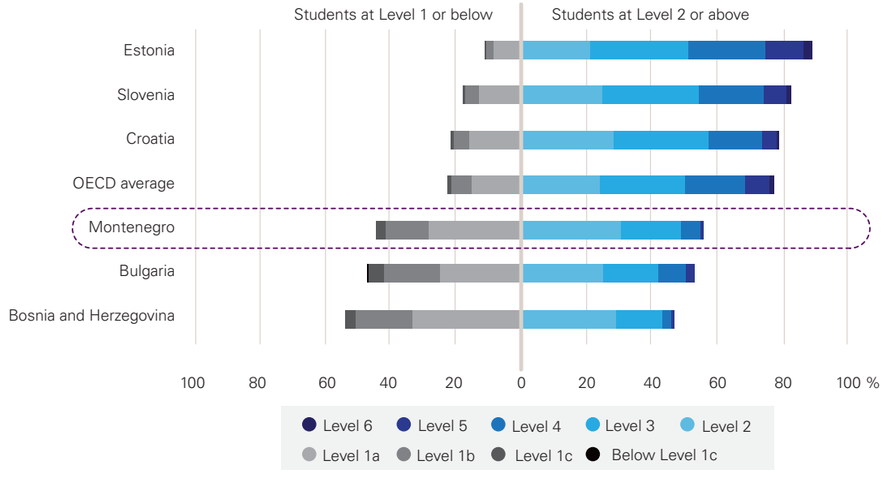
| Proficiency level 2018 (2015)* | Reading | | Mathematics | | Science | |
|---|---|---|---|---|---|---|
| | ME | OECD | ME | OECD | ME | OECD |
| Below level 2 – 2018 | 44 (42) | 14 | 46 (51.9) | 13 | 48 (51) | 15 |
| At least level 2 – 2018 | 56 (56.7) | 77 | 54 (46.7) | 76 | 52 (48.5) | 78 |
| Level 5 or 2018 higher | 1 (1.4) | 9 | 2 (1.6) | 11 | <1 (0.5) | 7 |

** Values in brackets are from 2015*

*Source: Table based on PISA 2018 results OECD, PISA 2018 Database, Tables I.1 and I.10.1. and on PISA 2015 results*

Compared to 2015, the percentage of low-performing students decreased only slightly, indicating that almost half of the students remained below basic proficiency (level 2) after more than nine years of education, while the percentage of students at the highest levels (levels 5 and 6) remained negligible. The distribution of results changed differently in the three domains. In reading and mathematics the gap between weaker and stronger students decreased, while in science most students became somewhat stronger. Figure 3.2 and Figure 3.3 position the performance of Montenegro among selected PISA countries. A graph showing Montenegro's position among all the PISA countries is attached.

***Figure 3.2 Students' proficiency in reading in PISA 2018, selected countries***



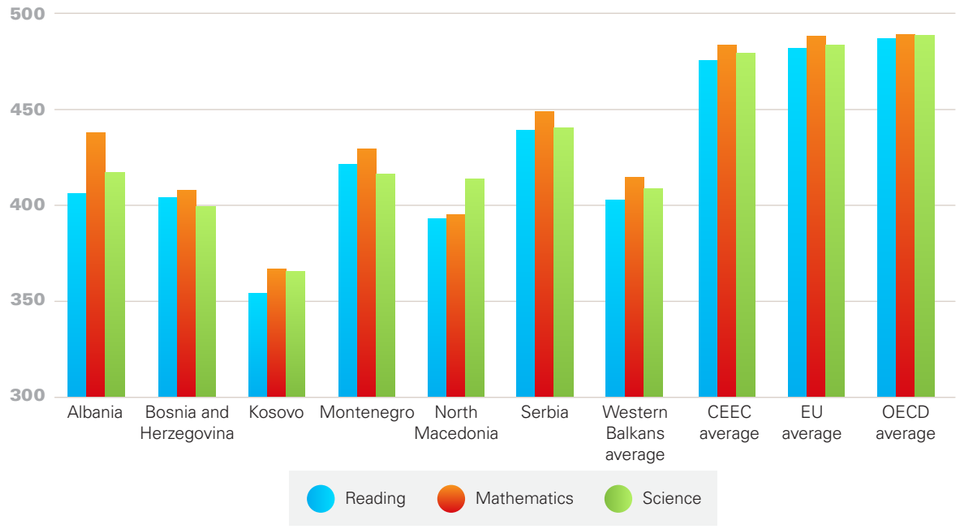

*Source: OECD, PISA 2018 Database, Tables I.B1.1 and I.A2.1.*

74 Level 2 in PISA is defined separately for each scale. In mathematics at level 2, students can interpret and recognize situations in contexts that require no more than direct inference. They can employ basic algorithms, formulae, procedures or conventions to solve problems involving whole numbers. They are capable of making literal interpretations of the results. Readers at level 2 can locate one or more pieces of information, recognize the main idea in a text, understand relationships, or construe meaning within a limited part of the text and make comparisons or contrasts based on a single feature in the text. In science, students at level 2 are able to draw on everyday content knowledge and basic procedural knowledge to identify an appropriate scientific explanation, interpret data, identify the question being addressed in a simple experimental design and they can use basic or everyday scientific knowledge to identify a valid conclusion from a simple data set. (PISA 2018 Assessment and Analytical Framework https://www.oecd-ilibrary.org/education/pisa-2018-assessment-and-analytical-framework_2c7c311d-en).

75 https://ec.europa.eu/education/policies/european-policy-cooperation/et2020-framework_en.

Compared to other countries of the Western Balkans, Montenegro has a better than average performance on PISA, and scores better than Kosovo, North Macedonia and Bosnia and Herzegovina, as shown in Figure 3.3.

***Figure 3.3 PISA 2018 performance in reading, mathematics and science in Western Balkan countries***




*Source: OECD (2020). Education in the Western Balkans: Findings from PISA. Paris: PISA, OECD Publishing.*

Students' performance in Montenegro differs between the different types of schools included in testing. Students in general secondary school have the highest scores in all three domains, the difference amounting to up to almost 80 points when compared to vocational school students. Compared to 2015, the scores increased in all types of schools.

***Table 3.2 Average performance of students in different types of secondary school***

| | General school | Mixed school[76] | Vocational school |
|---|---|---|---|
| Reading | 476 | 420 | 399 |
| Mathematics | 481 | 425 | 411 |
| Science | 465 | 413 | 396 |

*Source: Examination Centre of Montenegro. PISA 2018 results in Montenegro. Draft report*

### 3.2.1.2 Student assessment in TIMSS – fourth grade

Like PISA, also the Trends in International Mathematics and Science Study (TIMSS)[77] for fourth grade students shows underperformance in learning outcomes, but there is a positive trend in mathematics.

76 Mixed school in Montenegro refers to secondary schools that have both general and vocational tracks.

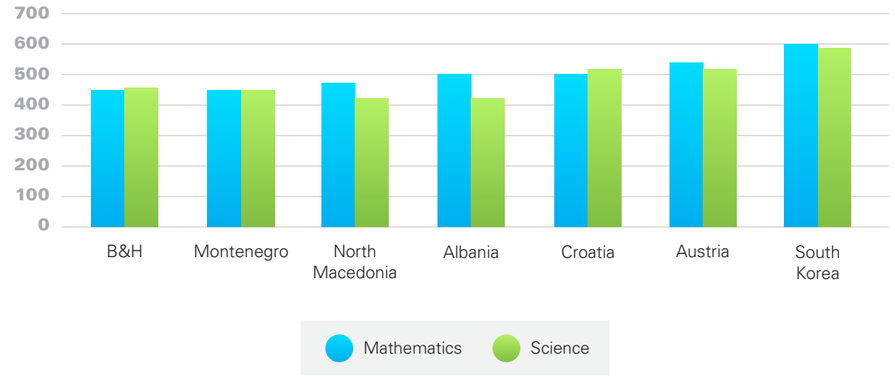
77 Trends in International Mathematics and Science Study (TIMSS) has been a valuable tool for monitoring international trends in mathematics and science achievement at the fourth and eighth grades, conducted every four years since 1995. TIMSS 2019 was administered at the fourth and eighth grades in 64 countries and eight benchmarking systems. Montenegro participated for the first time, with 4,690 students from the fourth grade only, drawn from 140 primary schools





The results of Montenegrin students in TIMSS 2019 are below average on both scales,[78] lagging behind even those countries that Montenegro outperformed in PISA (Figure 3.4). A discrepancy in this direction is somewhat unusual, especially in the region, where TIMSS usually shows better results than PISA, and the reasons for it require further exploration.[79]

***Figure 3.4 Achievements in TIMSS 2019 mathematics and science scales for Montenegro and selected other TIMSS countries for fourth grade students***




*Source: Constructed based on data drawn from: Muli,I.V.S., Martin, M.O., Foy, P., Kelly, D.L., & Fishbein, B. (2020). TIMSS 2019 International Results in Mathematics and Science. Retrieved from Boston College, TIMSS & PIRLS International Study Center website:* https://timssandpirls.bc.edu/timss2019/international results.

Similarly as in PISA, the distribution of scores according to achievement levels (defined as low, intermediate, high and advanced) on Table 3.3 shows that Montenegro has unfavourable results – leaving 24 percent of students in mathematics and 25% in science below the benchmark "low" defined at 400 points, and only 1 percent meeting the "advanced" benchmark.

***Table 3.3 Distribution of scores on TIMSS 2019 according to international benchmarks in Montenegro and selected countries***

| Country | Advanced (%) | | High (%) | | Intermediate (%) | | Low (%) | | Below (%) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Math | Sci | Math | Sci | Math | Sci | Math | Sci | Math | Sci |
| B&H | 1 | 1 | 9 | 12 | 40 | 44 | 76 | 78 | 24 | 22 |
| ***Montenegro*** | ***1*** | ***1*** | ***11*** | ***12*** | ***43*** | ***44*** | ***76*** | ***75*** | ***24*** | ***25*** |
| N. Macedonia | 5 | 1 | 21 | 11 | 52 | 34 | 78 | 62 | 22 | 38 |
| Albania | 5 | 4 | 26 | 24 | 62 | 59 | 86 | 86 | 14 | 14 |
| Croatia | 4 | 4 | 28 | 34 | 70 | 80 | 95 | 98 | 5 | 2 |
| Austria | 9 | 7 | 45 | 38 | 84 | 75 | 98 | 94 | 2 | 6 |
| South Korea | 37 | 29 | 77 | 73 | 95 | 95 | 99 | 99 | 1 | 1 |

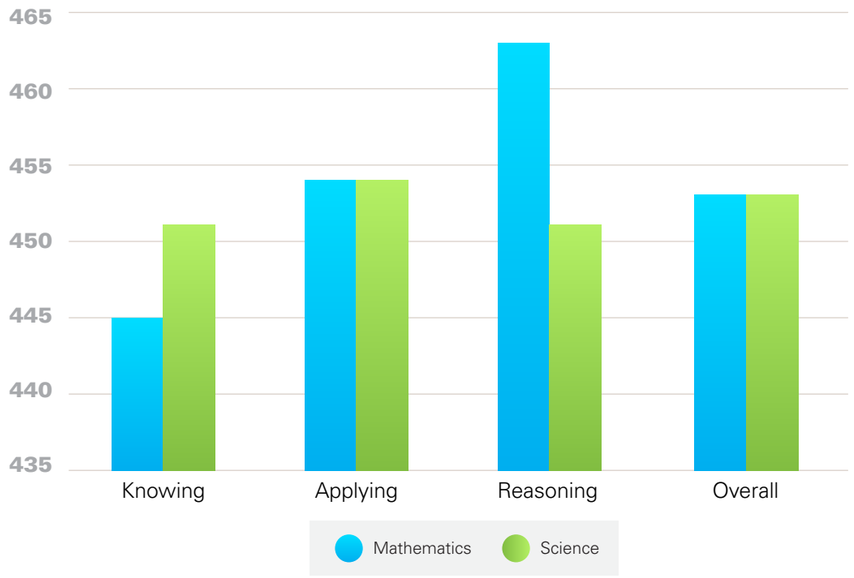
*Source: Constructed based on data drawn from: Mullis, I. V. S., Martin, M. O., Foy, P., Kelly, D. L., & Fishbein, B. (2020). TIMSS 2019 International Results in Mathematics and Science. Retrieved from Boston College, TIMSS & PIRLS International Study Center website: https://timssandpirls.bc.edu/timss2019/international-results/*

78 Dmitrovic, D. & Radovic, M. *TIMSS 2019 u Crnoj Gori Objava rezultata* (materijal pripremljen za prezentaciju), Ispitni centar Crne Gore.

79 Some of the possible sources of comparatively lower achievements may lie in the age of the sample population, as well as in the characteristics of the fourth grade curriculum.

Interestingly, further analysis of the TIMSS results in Montenegro in terms of items measuring "knowing" (the basic level, referring to reproductive knowledge), "applying" and "reasoning" (the two more advanced levels) shows in Figure 3.5 no differences between the proficiency levels in science, but a statistically significant difference in mathematics, in favour of the more advanced level – "reasoning", compared to "knowing" and "applying".

***Figure 3.5 Distribution of scores of Montenegrin students in TIMSS 2019 according to cognitive domains of knowing, applying, reasoning***




*Source: constructed based on data drawn from: Mullis, I. V. S., Martin, M. O., Foy, P., Kelly, D. L., & Fishbein, B. (2020). TIMSS 2019 International Results in Mathematics and Science. Retrieved from Boston College, TIMSS & PIRLS International Study Center website: https://timssandpirls.bc.edu/timss2019/international-results*

This result corresponds to the significant increase in the PISA scores in mathematics between 2015 and 2018, and points to a somewhat favourable trend in mathematics. Efforts should be made to extrapolate the trend to other subjects and domains, especially natural sciences.

### 3.2.1.3 School and individual characteristics associated with achievement in PISA 2018

**Montenegro has a relatively high level of school absenteeism, which likely has a negative impact on learning outcomes.**

Montenegro did not participate in two additional measurement domains offered in 2018 – general competence and financial competence, but it participated in the surveys about school climate and student wellbeing administered along with the PISA tests, that provide insights Into achievement correlates regarding reading,[80] and a valuable glimpse into what

80 In 2018 the main area for PISA was reading, hence all non-cognitive and school characteristics are mapped to the performance in reading.





actually happens in the schools and how students feel. A prevalent strict disciplinary climate in schools, combined with toleration of high truancy and tardiness and a high percentage of students (55%) with a "fixed mindset"[81] (i.e. a false understanding that intelligence cannot be changed) might be indicative of an unfavourable learning climate in many secondary schools. These findings are corroborated by data from interviews with representatives of parent and student associations, as well as resource persons from background institutions, pointing out that in many secondary schools in Montenegro the school culture may be lacking motivation, engaging and meaningful learning activities, and a socially, emotionally and cognitively stimulating environment. According to the same interlocutors, and visible in the PISA data as well, lower relational trust between teachers and students may be often the case, which could in turn limit the development of curiosity, critical thinking and risking to take initiatives,[82] therefore this issue needs to be urgently further explored.

***School climate indicators***[83] in Montenegro, as measured by PISA, portray occasional significant differences compared to OECD countries.

Regarding *student disruptive behaviour*, there are significant differences between measures in Montenegro and in OECD countries. The disciplinary climate in Montenegrin schools is considerably higher than in average in OECD countries (Montenegro ranks 12th among the 79 PISA countries),[84] while skipping a day from school or arriving too late[85] happens much more frequently in Montenegro (58% and 67% of students, respectively) than in OECD countries on average (21% and 48%, respectively). Both variables are associated with achievements in reading in Montenegro. Higher discipline is associated with better achievement and students who report that during classes there is noise and disorder score significantly lower in reading (as many as 61 points fewer) than those in whose classes noise and disorder do not happen. The difference in achievement between undisciplined and disciplined classes is the highest in Montenegro among the PISA countries.[86] Students who report not skipping a day have a 48-point higher achievement than those who have skipped a day five or more times, and a 41-point higher achievement in the case of those who arrive late,[87] corresponding to more than a year difference in PISA scores. Montenegrin students experience bullying in school at similar rates as students in OECD countries (25% and 23% for boys and girls, respectively).

81 Growth mindset vs. fixed mindset is a personality trait originally explored by Carol Dweck (Dweck, C. S. (2008). Mindset: The new psychology of success. Random House Digital, Inc.), who identified two mindsets that people can have about their abilities. Those with a fixed mindset believe that their talents and abilities are simply fixed, while people with a growth mindset, on the other hand, think of talents and abilities as things they can develop—as potentials that come to fruition through effort, practice, and instruction. This dimension was used in 2018 PISA. Fifty-five percent of students in Montenegro have a fixed mindset.

82 See, for example, Gregory, A., & Ripski, M. B. (2008). Adolescent trust in teachers: Implications for behavior in the high school classroom. School Psychology Review, 37(3), 337–353; Van Maele, D., & Van Houtte, M. (2011). The quality of school life: Teacher-student trust relationships and the organizational school context. Social indicators research, 100(1), 85–100.

83 School climate indicators measured through PISA include: 1. measures of student disruptive behaviour (bullying, disciplinary climate, student truancy and lateness), 2. teaching and learning (teacher enthusiasm, teachers' support and teaching practices, teacher behaviour and student learning), and 3. school community indicators (student cooperation and competition, sense of belonging at school, and parental involvement in school activities).

84 Source: OECD, PISA 2018 Database, Tables III.B1.3.1 and III.B1.3.5.

85 In the two-week period prior to testing.

86 Source: OECD PISA 2018 Vol. III, Table 3.1. (4/4).

87 Examination Centre of Montenegro. *PISA 2018 Results in Montenegro*. Draft report.

Montenegrin students who experienced bullying scored 20–24 points lower than those who did not.[88] These results indicate that school discipline in Montenegro is an area worth further exploring and improving, for the sake of the students' overall wellbeing. Developing classroom management policies that would refocus to ensuring student engagement and commitment, thus decreasing truancy, could be a viable option.

*Indicators of teaching and learning* were derived from students' and school principals' questionnaires, and, in most cases, painted a positive picture.

The index of *teacher enthusiasm* measured in PISA is at the level of OECD average in Montenegro. There are no school-level effects from social economic status regarding teacher enthusiasm in Montenegro, but teacher enthusiasm is associated with higher performances in reading.[89]

Students in Montenegro, similarly to the OECD countries' average, report a high percentage (71–80 percent, depending on the indicator) regarding obtaining teacher support for learning in school. Also, similarly to the OECD average, teacher support is higher in disadvantaged schools than in advantaged ones,[90] but teacher support is not significantly associated with achievements in reading. Teacher behaviour is rarely reported by school principals in Montenegro which could hinder learning, and at a significantly lower rate compared to the OECD average and also compared to most other PISA countries, except for teachers being too strict with students, which is close to the OECD average. Students that report a higher level of endurance on a task in Montenegro score significantly higher (more than 50 points) in reading than those who do not.[91]

*School community indicators* in Montenegro testify to positive trends but also to areas of school life with ample space for improvement. They addressed competition, cooperation, a sense of belonging to the school and parental involvement in school activities.

Montenegrin students report *higher levels of competition between students than cooperation,* although both indexes are relatively low. Also, competition in Montenegro was not significantly associated with achievement, while cooperation was, in fact, low.[92] Both results indicate that the advantages of cooperative learning and student cooperation are not being fully utilized in Montenegro.

*Students' sense of belonging to a school* in Montenegro is at the level of the OECD average, and is significantly lower in disadvantaged schools.[93] As in most OECD countries, in Montenegro a higher sense of belonging to school is associated with higher performances in reading.

*Parental involvement in school activities* according to some dimensions of participation is higher in Montenegro than the OECD average as shown in Table 3.4.

88 Ibid.
89 PISA 2018 Results (Volume III): What School Life Means for Students' Lives. pp 90.
90 Source: OECD PISA 2018 Vol. III, Table 3.1. (4/4).
91 Examination Centre of Montenegro. PISA 2018 Results in Montenegro. Draft report.
92 Source: OECD PISA database Table III.B1.6.1. and OECD PISA 2018 Vol. III, Figure III.6.2.
93 OECD PISA Database.





***Table 3.4 Parental involvement in school activities***

| Percentage of students' parents who participated in the following school-related activities: | A Discussed their child's progress with a teacher on their own initiative | B Discussed their child's progress on the initiative of one of their child's teachers | C Participated in local school governing | D Volunteered in physical or extra-curricular activities |
|---|---|---|---|---|
| **OECD average** | 41 | 57.5 | 16.6 | 12.3 |
| ***Montenegro*** | *61* | *42* | *19* | *10* |
| **Estonia** | 39 | 50 | 17 | 19 |
| **Slovenia** | 51 | 33 | 15 | 2 |
| **Croatia** | 50 | 34 | 21 | 5 |
| **Bosnia and Herzegovina** | 54 | 44 | 28 | 13 |

*Source: PISA 2018 Database Table III.B1.7.6*

These results in Montenegro reflect a change of school ethos where parent participation is welcomed and nurtured – a significant difference to data obtained 10 years earlier.[94] However, the only indicator connected to performance in OECD countries is the percentage of teacher-initiated joint discussion of a child's progress[95] – exactly where Montenegro is most lagging behind the OECD average.

***Student wellbeing –*** Regarding indicators of student wellbeing, Montenegrin students display a fairly positive status, except for a disturbingly low growth mindset. Student wellbeing, as an area examined in PISA 2018, included students' life satisfaction and sense of meaning in life, students' feelings, students' self-efficacy and fear of failure, as well as having a growth mindset, i.e. believing that growth and change can happen.

Most students in Montenegro are *satisfied with life* (75%) and they sometimes or always feel happy (93%) – both measures are higher than the OECD average, and a lower proportion of students than the OECD average always feel sad (only 6%).[96] More Montenegrin students report a *higher feeling of self-efficacy* (e.g. "My belief in myself gets me through hard times") and fewer students report a fear of failure than their peers in OECD countries on average.[97] Both are moderately associated with performance.[98]

On the other hand, statistically, students in Montenegro have *a growth mindset less often than the average in OECD countries*,[99] with only 45 percent of students disagreeing with the statement that "your intelligence is something about you that you cannot change very much".[100] Montenegro falls among the 25 countries with lowest growth mindset (compared

94 Kovacs Cerovic, T., Vizek Vidovic, V., Powell, S. (2010). Parent participation in the life of schools in South East European countries. Ljubljana: Centre for Education Policy Studies.
95 PISA 2018 Results (Volume III): What School Life Means for Students' Lives. 146.
96 Source: OECD PISA 2018 Vol. III, Table 3.2. (2/4).
97 Source: OECD, PISA 2018 Database, Tables III.B1.13.1 and III.B1.13.2.
98 OECD, PISA 2018 Database, Tables III.B1.13.10 and III.B1.13.15. and 196. Vol III.
99 Growth mindset vs. fixed mindset is a personality trait originally explored by Carol Dweck (Dweck, C. S. (2008). Mindset: The new psychology of success. Random House Digital, Inc.) who identified two mindsets that people can have about their abilities. Those with a fixed mindset believe that their talents and abilities are simply fixed, while people with a growth mindset, on the other hand, think of talents and abilities as things they can develop—as potentials that come to fruition through effort, practice, and instruction. This dimension was used in 2018 PISA.
100 Source: OECD PISA 2018 Vol. III, Table 3.2. (3/4).

to, for example, 77 percent in Estonia, 75 percent in Denmark, and the OECD average of 63 percent) and also lags behind other countries of the region, such as Bosnia and Herzegovina, Serbia, Croatia and Slovenia. School policies in Montenegro could contribute to the development of a growth mindset instead of a fixed mindset among students, as a growth mindset is an important attitude that drives learning and the pursuit of development.

### 3.2.2 Student achievements in national examinations and assessments and factors related to student achievements

Montenegro collects a wealth of information about student achievements, which indicates a keen interest in improving performance, but also raises concerns about the absorption capacity of the system regarding data utilization. Montenegro conducted national tests to assess learning outcomes and national school-leaving examinations interchangeably, at various school levels, from 2007 onwards. The national examinations and tests are conducted by the Examination Centre. Table 3.5 below provides an overview of the type of assessment, calendar year and target age.

***Table 3.5 Overview of the type of assessment, calendar year and target age***

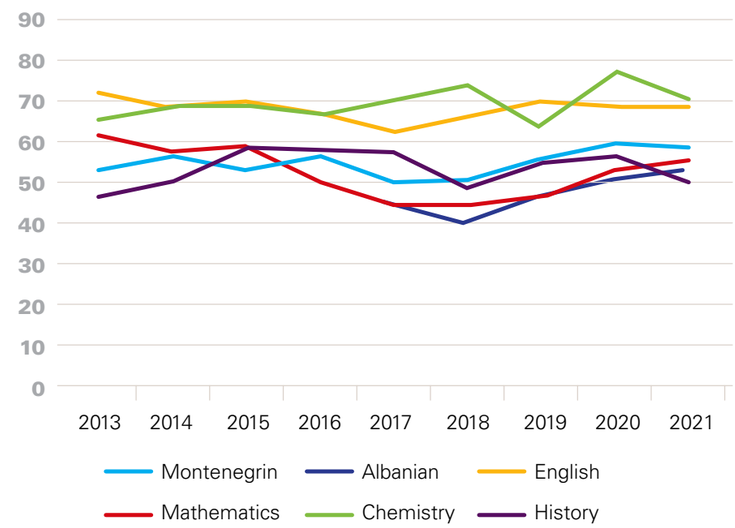
| Year | Type of assessment | Subject areas | Grade | Comment |
|---|---|---|---|---|
| 2007 | National testing pilot | Mathematics<br>Mother tongue<br><br>Mathematics<br>Mother tongue<br>Foreign language | End of 1st and 2nd cycles<br><br>(3rd and 6th grades) | |
| 2008 | National testing | Mathematics<br>Mother tongue<br><br>Mathematics<br>Mother tongue<br>Foreign language | End of 1st and 2nd cycles<br><br>(3rd and 6th grades) | Entire population<br><br>Detailed report, school-level reports |
| 2009–2017<br><br>2009–current | National exam at end of 1st and 2nd cycles<br><br>School-leaving exam | 1st cycle:<br>Mathematics<br>Mother tongue<br><br>2nd cycle:<br>Mathematics<br>Mother tongue<br>Foreign language<br><br>3rd cycle:<br>Mathematics<br>Mother tongue<br>and an elective subject | End of 1st, 2nd and 3rd cycles (3rd, 6th and 9th grades) | Entire population;<br><br>Detailed national report, school-level reports<br><br>Administered and graded by school teachers |
| 2011–current | School-leaving exam in general secondary education, Professional exam in secondary vocational education, final exam | Mother tongue + mathematics or foreign language | End of upper-secondary education | Administered by schools, graded by Examination Centre |
| 2017–current | National testing | Mother tongue, mathematics, foreign language, sciences (natural and social) | End of 2nd cycle (6th grade) | Examination Centre<br>Entire population;<br>2018 focus: science<br>2019 focus: Montenegrin-Serbian/Croatian/Bosnian language<br>2020 skipped<br>2021 focus: mathematics |

The wide scope of national learning outcome assessments that have been developed, implemented and fine-tuned over the years indicates a keen interest in high achievements and in gathering information that informs, on the one hand, students, teachers and schools about their performance and, on the other hand, the policymaking process. Taking into account also Montenegro's participation in three international studies, the fact that all assessments are de facto knowledge assessments of students of a certain age or grade, including international ones, as well due to the sample size required to participate in the study, and the fact that all these assessments are conducted by the Examination Centre of Montenegro, which has a small number of employees, requires scrutiny of both the absorption capacity of the system regarding data utilization, as well as of the institutional capacity for providing data analysis and due reporting. In this report we will analyse only the external school-leaving examination at the end of the third cycle.

#### 3.2.2.1 External school-leaving examination: ninth grade

Findings testify to a recurrent gap between test results and teacher grades, pinpointing a tendency of schools to inflate grades. The external school-leaving examination at the end of the third cycle of basic education has been conducted every year since 2009. Although this timeframe, as well as the technical design of the tests, should make the results suitable for trend analysis, the fact that the administration and scoring procedures are organized entirely by the schools themselves does not allow reliable comparisons between years.[101] The same holds true for comparisons between achievements in different subjects. Achievements in the majority of subjects show a slightly increasing trend in the last three years.

***Figure 3.6 External school-leaving exam (ninth grade) average score trends 2013–2020, select subjects (as average percentage of test completion)***



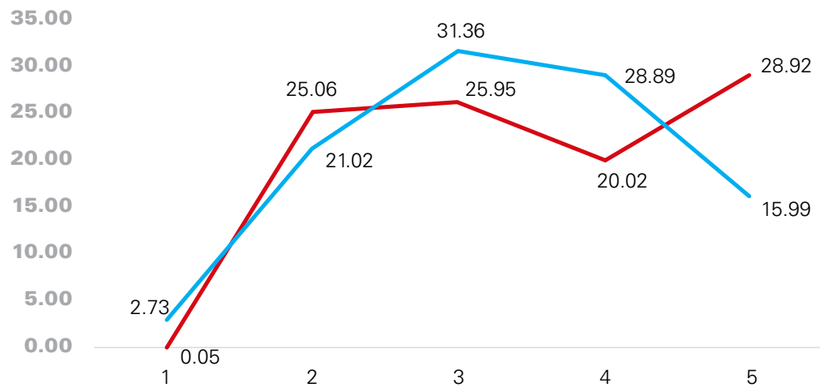

*Source: Data compiled from Examination Centre of Montenegro: Report on external assessment of knowledge at the end of the third cycle of basic schooling for the 2019/2020 academic year and from Examination Centre of Montenegro: Report on external assessment of knowledge at the end of the third cycle of basic school for the 2020/2021 academic year*

Results however testify to a recurrent gap between the test results and teacher grades for each of the subjects, pinpointing a tendency of schools to inflate grades at the end of basic schooling. See the example in Table 3.7.

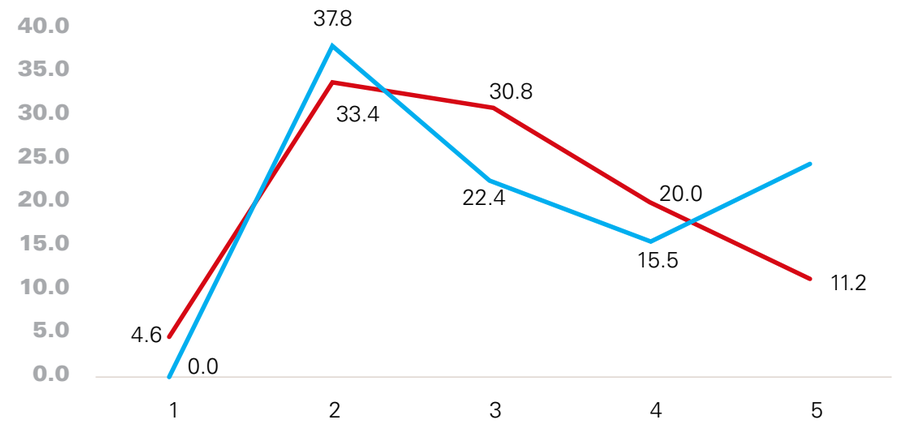
101 Due to these factors, it has to be noted that the scores for academic year 2020/2021 do not reflect a decline as a consequence of the COVID-19 lockdowns.

***Figure 3.7 Ninth-grade external school-leaving examination scores and teacher grades in 2020, (a) mother tongue and (b) mathematics (red line teacher grades; blue line test scores)***

***a) Mother tongue***




***b) Matematics***




*Source: Examination Centre of Montenegro: Report on external assessment of knowledge at the end of the third cycle of basic schooling for the 2019/2020 academic year.*

The reports for schools consist of detailed information about the achievements of the students of the school, a comparison against the national average, and comparison against schools with similar characteristics. These reports are intended for school improvement, and are also used by the external school evaluators.

Yearly national reports are prepared consisting of a very detailed explanation of the item characteristics, scoring procedures and mistakes, a detailed analysis of the results and comparison to school grades. However, the yearly technical reports on the examination results do not include any demographic or educational variables that could provide information on gender, SES, region, school characteristics or vulnerability differences between students' achievements,[102] hence their direct utilization for policy purposes is limited.

102 Only the central MEIS includes all types of data, and only based on this register can inferences about policy relevant differences and trends be made. The procedure for accessing the database is centralized.





### 3.2.2.2 External evaluation of schools

External evaluation reports include very detailed information, but are currently less useful for policymaking**.** External evaluation of schools already has a considerable tradition in Montenegro – the development of a system of external evaluation in accordance with quality standards started with piloting of a new system in 2005, shortly after the establishment of the Bureau of Education. The system was relying on best international practice, and was further improved by introducing a framework for quality assurance of schools, including seven areas of assessment with indicators and descriptors:

- Quality of management and leadership;
- Quality of human, financial, technical resources and safety conditions;
- Ethos;
- Support to students;
- Cooperation with parents, other institutions and the local community;
- Teaching and learning;
- Student achievements.

Supervisors are trained, detailed procedures developed and each school is evaluated according to a sophisticated procedure every four years. Reports are fed back to schools and used for school improvement,[103] and a yearly national report is submitted to the National Council for Education and the Government. The overall, anonymized, yearly national reports are displayed on the homepage of the Bureau of Education and are open to the public. School evaluation is therefore used not only for the purpose of internal review and school improvement, but also for increasing accountability to the general public, including parents and students.

The yearly reports present the evaluation process and outcomes for all schools evaluated in a calendar year. These reports are very detailed, presenting the average results standard by standard, indicator by indicator, thus providing a snapshot of the evaluated schools' overall quality. However, the reports are not formatted so as to be a fully useful tool for policymaking – there are no thematic reports using data from different years about a single topic that is explored in detail, as is the practice in countries with a long tradition of effective external evaluation of schools, such as Scotland, the Netherlands and New Zealand, for example. Furthermore, there is no comparison across years, or of all schools evaluated in one cycle. Hence the very detailed high-quality work, knowledge and skills invested in the complex exercise of external evaluation of schools is not fully capitalized upon and external evaluation does not have the policy impact it could have.

103 It would be useful to check the way schools perceive and use external evaluation data, but such a check would require empirical research that cannot be covered by this analysis.

## 3.3. Analysis of system capacities and their relationship with student learning outcomes

### 3.3.1 Efficacy of education system based on PISA results

Certain system-wide characteristics could be further improved to support learning outcomes; these include, amongst other things, the ICT infrastructure and the number of days of schooling per year. PISA 2018 focused on several education-system-wide characteristics that are, in the majority of countries, associated with higher performance in reading, although no causality is inferred. The analytical reports and their interpretation highlighted the following system level features that high-performing education systems have:

- A moderate amount of learning time (24–27 hours weekly) spent in regular lessons is associated with higher performance; less than 20 and more than 39 classes weekly are associated with lower performance. Providing more extracurricular activities, such as band or orchestra practice, seminars, library, etc. is a characteristic of high-performing systems.
- Fully qualified and available teaching staff, appropriate school infrastructure and educational materials are characteristics of effective, high-performing education systems, while smaller class sizes do not seem to contribute substantially to higher performance.
- Internet connectivity, schools' and teachers' capacity to enhance teaching and learning using digital devices, and providing effective online learning platforms are distinctive characteristics of high-performing educational systems, towards which a particular spotlight has been turned during the COVID-19 pandemic and related school lockdowns.
- Systems looking after compensating for learning disadvantages at home by providing space for homework, teacher or peer support also perform better in PISA. Also, the practice of repeating grades should be kept at a minimum level.
- Attending pre-primary education proved beneficial in PISA as well. Education systems where more students had attended pre-primary education for three years or more showed higher performance, and also equity.
- Schools use student assessment to inform parents, on one hand, but also to improve the teaching and learning processes and curriculum.
- High-performing systems have a practice of regular consultations on school improvement, seeking written feedback from students, and providing information on student performance.

Assessing the education system in Montenegro, according to the aforementioned dimensions, highlights some of the main features contributing to or hindering the quality of education in the country. For the analysis on the availability of school infrastructure, see Section 2.1 and, for the availability of qualified teachers, see Section 3.5.

*Learning time* during regular classes falls into the recommended interval of 24–27 hours per week. However, the number of hours devoted to language-of-instruction classes is somewhat lower than in OECD countries, and in those schools with students who have a higher economic, social and cultural status – ESCS ("advantaged schools") there are more language classes weekly than in schools with students who have, on average, a lower ESCS, reflecting a difference in the curriculum between general secondary and VET schools

***Table 3.6 International comparison of hours of learning time per week***

| Hours per week | Language of instruction | Mathematics | Science lessons | Foreign language | Total |
|---|---|---|---|---|---|
| **OECD average** | 3.7 | 3.7 | 3.4 | 3.6 | 27.5 |
| ***Montenegro*** | *2.8* | *2.6* | *1.7* | *2.7* | *26.8* |
| **Estonia** | 3.1 | 3.5 | 3.6 | 4 | 26.1 |
| **Slovenia** | 3 | 2.8 | 3.3 | 3 | 28.1 |
| **Croatia** | 2.9 | 2.6 | 3.4 | 2.6 | 26.9 |
| **Bosnia and Herzegovina** | 2.6 | 2.6 | 2.8 | 2.6 | 26.1 |

*Source: PISA 2018 Database Table V.B1.6.1*

On the other hand, almost all students (95 percent of the sample in Montenegro, compared to 50 percent in OECD countries) have the chance to participate in additional language-of-instruction lessons, irrespective of the SES profile of the school.[104] Information about how and whether this possibility is used is not available.

However, learning time seen from a yearly perspective might be less than optimal. Compared to EU countries, Montenegro has a relatively short school year of 183 days (in the last grades only 168 days), that could have systemic consequences, especially taking into account the percentage of students who reported skipping a day in school in Montenegro, which was almost three times as high as in OECD countries on average (58% compared to 21%).

#### 3.3.1.1 Internet connectivity and digital platforms

Compared to other countries upper secondary schools in Montenegro seriously lag behind regarding availability of ICT equipment: in 2018 Montenegro was among the five worst-off PISA countries.

***Table 3.7 International comparison of number of computers per student***

| Computer:student ratio | Average mean ratio | Top – bottom quarter diff. |
|---|---|---|
| OECD | 0.8 | |
| Estonia | 1.10 | –0.12 |
| Slovenia | 0.72 | –0.22 |
| Bosnia and Herzegovina | 0.30 | 0.08 |
| Croatia | 0.45 | –0.11 |
| Montenegro | 0.21 | –0.08 |

*Source: PISA 2018 Database Table V.B1.5.6*

Although the number of computers has been on the increase, their number per student is still low. The most recent data from June 2021, from UNICEF and the MoESCS, provides a ratio of 1 computer to 16 students on average, for primary, lower- and upper-secondary education.

104 PISA 2018, Vol V, Figure V.6.6.

Regarding portable computers that are available for PISA students in Montenegro, the situation is also far worse than in other countries; however, in Montenegro, unlike many other countries, disadvantaged schools are better-off than advantaged schools.[105] Table 3.8 shows that school principals in Montenegro paint a somewhat unrealistically positive picture regarding teachers' capacities at using ICT and the support that is provided for that by the school, although acknowledging the lack of ICT equipment. **Developing a comprehensive strategy for the development of quality and inclusive digital education is recommended**. The strategy should encompass ways to increase the availability of IT equipment to schools, teachers and students, the development and availability of high-quality learning platforms, development of learning materials and appropriate pedagogy for teaching, learning and assessing in an online environment and appropriate training of all education staff.

***Table 3.8 International comparison of school principals' assessment of ICT infrastructure in schools***

| Percentage of students in schools whose principal agreed or strongly agreed with the following statements: | OECD | Estonia | Slovenia | BH | Croatia | MNE | A – D diff[106] |
|---|---|---|---|---|---|---|---|
| The number of digital devices connected to the internet is sufficient | 67.2 | 81.5 | 89.3 | 46.5 | 76.4 | 42.8 | Not significant |
| The school's internet bandwidth or speed is sufficient | 67.5 | 74.8 | 90.0 | 49.7 | 69.9 | 75.2 | –31.35 |
| The number of digital devices for instruction is sufficient | 59 | 64.4 | 85.7 | 37.5 | 65.0 | 39.7 | 11.9 |
| Digital devices at the school are sufficiently powerful in terms of computing capacity | 68.5 | 77.3 | 81.6 | 36.5 | 53.1 | 32.2 | 13.5 |
| The availability of appropriate software is sufficient | 71.3 | 82.0 | 86.4 | 35.0 | 57.8 | 56.7 | 3.4 |
| Teachers have the necessary technical and pedagogical skills to integrate digital devices into instruction | 64.6 | 63.6 | 77.2 | 66.8 | 61.9 | 75.6 | –9.1 |
| Teachers have sufficient time to prepare lessons integrating digital devices | 60.9 | 49.8 | 87.9 | 81.7 | 79.2 | 88.4 | –22 |
| Effective professional resources for teachers to learn how to use digital devices are available | 64.7 | 79.3 | 78.0 | 56.0 | 72.8 | 70.5 | –15.1 |
| An effective online learning support platform is available | 54.1 | 66.5 | 77.4 | 33.6 | 48.6 | 49.3 | –29.4 |
| Teachers are provided with incentives to integrate digital devices into their teaching | 56.7 | 64.1 | 95.7 | 52.5 | 94.9 | 78.3 | –9.3 |
| The school has sufficient qualified technical assistant staff | 54.1 | 63.3 | 61.1 | 54.4 | 41.7 | 73.1 | Not significant |

*Source: PISA 2018 Database Table V.B1.5.15*

105 PISA 2018 Database Table V.B1.5.8

106 The statistically significant differences between advantaged and disadvantaged schools in Montenegro. Negative values indicate that disadvantaged schools are better-off.





***System compensation with diverse supports*** **(such as a room for doing homework, teacher support, peer support) is available for students in Montenegro to a lesser degree than in OECD countries**, except regarding peer support, which is more often present in Montenegro than in other countries. However, unlike other countries, all three types of support measures in Montenegro are more often discernible in disadvantaged than in advantaged schools, indicating that these measures are targeted at students in higher need. They are also significantly related to reading performance in Montenegro, and are associated with an increase of around 10 points in their performance after taking into account SES – somewhat more than in OECD countries on average.

***Table 3.9 Percentage of students in schools where study help is provided***

| Percentage of students in schools where the following study help is provided | Room(s) where students can do their homework | Staff provides help with homework | Peer-to-peer tutoring |
|---|---|---|---|
| OECD average | 75.7 | 62.2 | 47.9 |
| ***Montenegro*** | ***48.2*** | ***20.9*** | ***61*** |
| Estonia | 67.8 | 56.5 | 51.5 |
| Slovenia | 90.2 | 50.5 | 54 |
| Croatia | 69.3 | 19.7 | 48.2 |
| Bosnia and Herzegovina | 46 | 32.7 | 64.7 |
| *Difference between advantaged and disadvantaged schools (OECD)* | *6.7* | *–6* | *12.7* |
| *Difference between advantaged and disadvantaged schools (Montenegro)* | *–9.2* | *–31.5* | *–63.8* |

*Source: PISA 2018 Database, Table V.B1.6.19.*

*In addition to the already mentioned characteristics, international PISA results also highlight the following system characteristics that contribute to high performance at a system level, that are however not yet being achieved in Montenegro:*

- The importance of pre-primary education lasting more than three years, that in Montenegro is not being achieved despite steady progress in increasing access rates.
- Use of student assessment to inform parents, but also to influence curriculum changes. In Montenegro student assessments, including also examinations and national/international testing are not regularly being fed back to influence curriculum changes.

### 3.3.2 Analysis of system capacities for strategic improvement of the quality and equity of education

In this section we analyse the strengths and weaknesses of the education system regarding the quality of education.

*Strengths* – The continuing process of the improvement of education in Montenegro in the previous two decades is evident. The major changes that have significantly contributed are:

- *The network of professional institutions at the national level* (the Bureau of Education Services, Centre for Vocational Education and Training, Institute for Textbooks and Teaching Aids and the Examination Centre) that has been established, is functional and has gained considerable skills and competencies to act with high professionalism accord-

ing to their roles.[107] Important support has been provided to education policymakers, schools and teachers in monitoring and improving the quality of all aspects of primary and secondary education by central educational institutions.

- The role of parents and students in decision making has been strengthened both at the level of educational institutions and at the national level; the involvement of the civil sector in the decision-making processes has increased, and public dialogue and consultation of various stakeholders has also been strengthened.
- The involvement of the economic sector and other social partners in secondary vocational education and training has been significantly strengthened.
- A coherent and comprehensive quality assurance system has been established. It includes all components in line with the good practices that exist in other countries (self-evaluation, external evaluation, national examination and international testing) and can provide relevant information on the quality and equity of education at the level of individual educational institutions and at the system level.
- Moreover, *the strategic and legislative framework of education* has been developed, updated and modernized. All priority education development areas update their strategies on a four- to five-year basis.

*Weaknesses* – Having in mind that the education system in Montenegro produces low educational outcomes, as illustrated in the relevant international assessments, such as both PISA and TIMSS, and that an unacceptably high percentage of students are not reaching even the lowest levels of functional literacy, system weaknesses need to be carefully scrutinized. The low learning outcome results can be improved only with steady and thoughtfully targeted work on the development of many aspects of the education system. For that reason, based on interviews and data analysis, the following seem to be major areas that need urgent improvement (the italicized initial sentence is derived from interviews):

- *Overproduction of under-analysed data*: While there is a considerable amount of data produced and collected about inputs, processes and outputs in terms of learning outcomes, the use of the data for school, local or national improvements is questionable. Moreover, not all available data is being utilized – namely demographic data is not fully represented in the MEIS. **Reports based on the data are duly produced, but policy relevant analyses are rare.** System capacities in terms of an insufficient number of employees, especially data analysts and researchers in institutions such as the Examination Centre or the Department for ICT, Statistics and Analytics, which manages the MEIS, might be one leg of such a situation, while the other might be on the demand side – policymakers need to insist on evidence-based policymaking, formulate and convey the requirement for policy-relevant analysis of the existing data, particularly in relation to the quality of teaching and learning, educational outcomes, implementation of an outcomes-based curriculum, early detection and support to students at risk of lagging behind, etc.
- *The quality assurance system is not fully functional:* **The external evaluation and self-evaluation of schools, although conducted with great care and evolving competences of the staff involved, does not provide sufficient policy impact**. Regular thematic analyses and yearly comparative reports are needed to better inform policy and

107 Nikolic-Vucinic A. & al. (2019). PISA 2015 results and policy recommendations. Podgorica: Ministry of Education of Montenegro and UNICEF.





engage a wide range of stakeholders in constructive dialogue about the most important steps in education development that serves the quality of schools.

- *Institutions have drifted apart:* **While all background institutions have a clear mandate and relevant scope of work, cooperation between them is not effective enough, thus creating the impression of fragmentation that can hamper joint commitment for ensuring a high quality of education.** The complexities of an education system in development can be managed only with synergetic activities by all the institutions, the prerequisite of which is the existence and frequent utilization of well-designed and mandatory direct cooperation and communication lines between the institutions, in terms of ensuring a high quality of implementation of the new concept of education that is set out in key strategic documents.
- *Systematic monitoring and evaluation of impact is not common practice*: Monitoring of the outcomes of the measures introduced is usually done by those in the central institutions who are responsible for introducing the measures, through collecting relevant administrative evidence, but not by independent evaluators or assessors engaged with the particular task to evaluate the impact using various quantitative or qualitative methodologies. **The lack of independent monitoring and evaluation can impede further policymaking towards an increased quality of education, as the measures and interventions that have been used so far are not fully effective.** Developing new measures is not recommended before implementation of the previous generation of measures is completed – especially those that are supposed to target equity and quality problems.
- *Partnership between parents and teachers at the school level is dysfunctional:* Although parent organizations have a say at the national level, are occasionally consulted and their voice is being heard and appreciated, the situation at the school level is often conflicting and not conducive to partnership. **Parent councils are often ineffective, rarely engage in relevant and challenging topics, while the overwhelming view of parents is that the traditional lecturing model of instruction and assessment based on reproduction and rote learning needs to be urgently changed**.
- *Relational trust is low in schools:* **A prevalent strict disciplinary climate in schools combined with a tolerance of high levels of truancy and tardiness and a high percentage of students with a "fixed mindset",** i.e. a false understanding that intelligence cannot be changed, are indicative that it might be the case in many secondary schools in Montenegro that there is a school culture that is lacking genuine commitment, motivation, engaging and meaningful learning activities and a socially, emotionally and cognitively stimulating environment. A low level of relational trust between teachers and students can contribute to low achievements and limit development, curiosity, critical thinking, active engagement, exploration and risk-taking initiatives; therefore this issue needs to be urgently explored further. Cooperation, as a main modus operandi, is also lacking in many further respects, such as in cooperative learning in class, cooperative discussions between teachers and parents on the development of the students, cooperation between teachers and their superiors and between the ministry and the various umbrella institutions.

- *ICT and other specialized teaching equipment is seriously lacking in schools:* **Compared to other countries, upper-secondary schools in Montenegro seriously lag behind regarding the availability of ICT equipment**. They have fewer ICT devices altogether, fewer devices that can be used for instructional purposes, the devices are not powerful enough and there is a lack of available software and learning platforms. A comprehensive strategy on the development of digital education is missing. The lack of specialized teaching equipment (including hardware, software and consumables) is a pronounced problem in vocational education, and can hamper the implementation of new curricula and practical modules.
- *Classroom assessment needs urgent upgrading and modernization*, in order for the new curriculum to be implemented at the classroom level. The developments in this area that have already happened need to be sped up, disseminated, and their use monitored and supported. **Classroom assessment and grading is a serious problem in the Montenegrin education system.** The uneven quality and relevance of formative assessment, inflated summative assessment, student absenteeism at the time of the regular end of school testing are all anomalies that can go hand-in-hand with integrity problems in the area of assessments and examination. There is already sufficient evidence for such concern.[108] Therefore it is recommended to undertake a thorough integrity assessment of the education system, with particular focus on inadequate recognition of learning outcomes.

## 3.4 Management of teachers

This section of analysis focuses on teachers – one of the most important success factors of the education system, school and student achievements.[109] The main aim of this part of the analysis is to identify the characteristics of teachers' positions, including recruitment, employment, teacher–student ratios, attrition, teacher training and job satisfaction.

### 3.4.1 Quantitative aspects of the management of teachers

#### 3.4.1.1 Staffing levels and recruitment

The staff in schools include teachers and professional advisors, such as: school psychologists, pedagogists, social workers, speech therapists, defectologists, and teaching assistants for inclusive education. Also, some schools employ associates for social inclusion for supporting the education of Roma and Egyptian students. The head of the school is the principal, and the school can also have assistant principals. Additional administrative and accounting support staff will not be discussed in this report.

*The recruitment procedures of education staff are detailed in the following steps:*

An educational institution may announce a vacancy for the employment of teachers if: there is no possibility to transfer a teacher from another public institution from the list of employees by agreement, for an indefinite period of time; if the education institution has a systematized and approved job available; and if it has proof from the ministry of the provided financial resources. Pursuant to the General Law on Education and Upbringing, the requirements for teacher employment are: an appropriate level of education and area (profile) of education; Montenegrin citizenship; and having passed a professional exam for working in educational institutions, i.e. work permit/licence. Teachers in institutions or special departments of institutions with instruction in minority languages need to also have an active knowledge of the language and script of that minority, and the Montenegrin language. A licence is a public document that proves the required level of the general and professional competencies of teachers, principals and assistant principals. A licence is issued after passing the professional exam for working in educational institutions and is valid for a period of five years. The licence must be renewed every five years (relicensing), in accordance with the professional development programme for teachers. A teacher, principal, or assistant principal who does not have a licence or has not renewed the licence is not entitled to work in an educational institution.

A teacher in a public institution is employed on the basis of a public competition, which is announced by the principal of the institution. The decision on hiring a teacher is made by the principal of the institution, at the proposal of the commission appointed by the principal of the institution.

If a teacher establishes an employment relationship for the first time in an institution in order to be trained for independent performance of work, seeking an appropriate level of education, they become a trainee teacher, on an internship. The internship of teachers with qualification VII sub-level 1 of the National Qualifications Framework lasts one year, and the internship of teachers who have qualification IV sub-level 1 of the National Qualifications Framework lasts six months. The internship is performed according to the established programme of educational work in the institution, under the direct supervision of an authorized teacher (mentor), who has, as a rule, more than three years of work experience in teaching and at least the same level of education as the intern. The mentor is appointed by the principal of the institution, at the proposal of the professional staff. The training of interns is carried out in such a way that ensures that the trainee teacher, through practical work and under the direct supervision of a mentor, is trained to independently perform tasks to the degree of their education in educational institutions. After completing the internship, the mentor prepares a report that contains a descriptive assessment and explanation of the intern's ability to perform tasks independently. The mentor's report is submitted to the Commission for taking the professional exam. After completing the internship, the teacher takes the professional exam. The professional exam is taken in front of a competent commission.

**Available data on current education staffing has certain limitations.** The Montenegrin Education Information System (MEIS) of the MoESCS maintains a database of employees; however, it is a dynamic database which is updated regularly and also quickly, in the case of maternity leave, sick leave or other events. The database does not include staff engaged on temporary basis, therefore the picture is not complete. Table 3.10 provides an overview of the full-time employed education staff, depicting trends from 2016 to 2020.

108 Lalovic: Corruption in Education. Bureau of Education.

109 Hattie, J., & Yates, G. C. (2013). Visible Learning and the Science of How We Learn. Routledge.



EDUCATION SECTOR ANALYSIS 2015–2020

***Table 3.10 Number of full-time employed teachers, professional advisors (pedagogists and psychologists) and teaching assistants 2016–2020***

| Education subsector | | 2016 | 2017 | 2018 | 2019 | 2020 | Difference 2016–2020 % |
|---|---|---|---|---|---|---|---|
| **Teachers** | Early Childhood Education | 962 | 967 | 1,060 | 1,140 | 1,196 | 24.2% |
| | Primary Schools | 4,729 | 4,669 | 4,434 | 4,430 | 4,344 | –1.7% |
| | General Secondary Schools | 362 | 363 | 330 | 326 | 331 | –1.1% |
| | Vocational Secondary Schools | 1,254 | 1,264 | 1,261 | 1,264 | 1,253 | 0.0% |
| | General and Vocational Secondary Schools | 457 | 442 | 426 | 422 | 411 | –9.0% |
| | **Subtotal Teachers** | **7,764** | **7,705** | **7,511** | **7,582** | **7,535** | **–2.9%** |
| **Professional Advisors** | Early Childhood Education | 31 | 30 | 33 | 34 | 50 | 61.3% |
| | Primary Schools | 142 | 151 | 144 | 142 | 142 | 0.0% |
| | General Secondary Schools | 12 | 9 | 10 | 9 | 9 | **–25.0%** |
| | Vocational Secondary Schools | 28 | 27 | 28 | 32 | 32 | 14% |
| | General and Vocational Secondary Schools | 11 | 12 | 10 | 11 | 11 | 0.0% |
| | **Subtotal Advisors** | **224** | **229** | **225** | **228** | **244** | **8.9%** |
| **Teaching Assistants** | Early Childhood Education | 23 | 30 | 29 | 33 | 34 | 78.2% |
| | Primary Schools | 49 | 49 | 74 | 75 | 142 | 69.9% |
| | General Secondary Schools | 1 | 3 | 3 | 2 | 2 | 100% |
| | Vocational Secondary Schools | 6 | 21 | 26 | 27 | 29 | 483.0% |
| | General and Vocational Secondary Schools | 0 | 2 | 2 | 2 | 2 | N/A |
| | **Subtotal Assistants** | 79 | 105 | 134 | 139 | 209 | 164.5% |
| **Total** | | **8,067** | **8,039** | **7,870** | **7,949** | **7,988** | **–1.0%** |

*Source: MoESCS MEIS*

The trends show an increase in all types of education staff (teachers, advisors and assistants) in ECE institutions, while the total number of teachers decreased in the observed period, mostly in the mixed general-vocational schools. The increase of ECE staff is reflected in the increased enrolment rate in ECE.

**The number of professional advisors for early childhood education and vocational education increased over the last five years. However the overall numbers are still very low and are even decreasing in general secondary schools due to very limiting regulations**. The low number of employed advisors (especially psychologists) creates concern in a period of intense reforms, and further changes are needed to improve the quality of work in schools, school ethos, relational trust, dropout and violence prevention and evolving inclusive education. Table 3.11 displays in greater detail the composition of professional advisors.





***Table 3.11 Composition of all professional advisors in all education institutions***

| | | Pedagogists | Psychologists | Speech therapists | Defectologists | Total |
|---|---|---|---|---|---|---|
| ECE institutions | 2020/21 | 15 | 12 | 8 | 3 | 38 |
| | 2019/20 | 15 | 11 | 7 | 3 | 36 |
| | 2018/19 | 13 | 12 | 8 | 3 | 36 |
| Primary schools | 2020/21 | 90 | 46 | 20 | 22 | 178 |
| | 2019/20 | 89 | 40 | 17 | 20 | 166 |
| | 2018/19 | 92 | 40 | 16 | 20 | 168 |
| Secondary schools | 2020/21 | 35 | 25 | | | 60 |
| | 2019/20 | 35 | 23 | | | 58 |
| | 2018/19 | 32 | 18 | | | 50 |
| Education centres | 2020/21 | 5 | | | | 5 |
| | 2019/20 | 3 | | | | 3 |
| | 2018/19 | 3 | | | | 3 |
| Resource centres | 2020/21 | 3 | 2 | 9 | 18 | 32 |
| | 2019/20 | 2 | 3 | 8 | 14 | 27 |
| | 2018/19 | 3 | 2 | 8 | 13 | 26 |
| Music schools | 2020/21 | 1 | 3 | | | 4 |
| | 2019/20 | 1 | 2 | | | 3 |
| | 2018/19 | 1 | 2 | | | 3 |
| **Total*** | **2020/21** | **148** | **89** | **37** | **43** | **317** |

*Source: MEIS*
*Note: * This total is higher than in Table 3.10. Table 3.11 includes all profiles and all institutions*

Regarding teaching assistants, the trend in Table 3.10 demonstrates that the inclusive education policy is effective, and support is provided continuously from the earliest age, through the transition of children to primary school, and further on to secondary, most often vocational school. Additionally, there are also 22 social inclusion associates for education, working in schools with a higher number of Roma and Egyptian students.

### 3.4.1.2 Vacancies

During the last five years the number of teachers' vacancies increased substantially, while the number of unemployed teachers was reduced.

Table 3.12 shows that, in the period 2015–2019, a growth of 57.3 percent in open calls for vacancies in educational institutions was recorded, contributing to a decrease in the number of unemployed teachers by 20.1 percent. Practice already shows that there is a risk that early childhood education will be facing a deficit.

***Table 3.12 Ratio between open vacancies for teachers and unemployed teachers***

| Teaching professions | 2015 | 2016 | 2017 | 2018 | 2019 | Trend 2015–2019 Difference | % |
|---|---|---|---|---|---|---|---|
| Open teachers' vacancies | 2,718 | 3,295 | 3,661 | 4,070 | 4,741 | 2,023 | 57.3 |
| Unemployed teachers | 4,207 | 4,938 | 4,487 | 3,820 | 3,363 | –844 | –20.1 |
| Difference | –1,489 | –1,643 | –826 | 250 | 1,378 | | |

*Source: Employment Agency of Montenegro – Annual Reports 2015–2019*

**There is limited insight into the structure of unemployed teachers.** Table 3.13 provides a breakdown of unemployed teachers by profession, but there are data limitations for at least two reasons. Cumulatively set records in Table 3.13 are not precise enough, do not provide targeted insight into trends, real events and needs, and thus reduce options for action and planning. The table does not distinguish, for example, who are teachers of mathematics and who are graduates of informatics and mathematics. Finally, this data does not indicate who are unemployed teachers who acquired pedagogical-psychological and didactic-methodological knowledge and skills during their university education, and who are engineers of certain professions who are teaching due to a lack of teaching staff in certain regions or schools.

***Table 3.13 Unemployed teachers***

| Teachers' professions | 2015 | 2016 | 2017 | 2018 | 2019 | Trend 2015–2019 | |
|---|---|---|---|---|---|---|---|
| | | | | | | Difference | % |
| ECE teachers, primary school teachers and teachers of social sciences and humanities | 1,511 | 1,568 | 1,480 | 1,282 | 1,101 | 410 | 27.13 |
| Teachers of natural sciences and mathematics | 85 | 85 | 86 | 84 | 64 | 21 | 24.71 |
| Teachers of technical subjects and technology | 12 | 14 | 9 | 10 | 16 | –4 | –33.33 |
| Teachers of health subjects | | | | | 1 | N/A | N/A |
| Teachers of social sciences and humanities | 2,063 | 2,620 | 2,300 | 1,832 | 1,608 | 455 | 22.06 |
| Other professions related to natural sciences and mathematics | 536 | 651 | 678 | 612 | 573 | –37 | –6.90 |

*Source: Employment Agency of Montenegro – Annual Reports 2015–2019*

### 3.4.1.3 Teacher attrition and age structure

**There is not sufficient quantitative data available to determine the teacher attrition rate. Qualitative data indicates that retirement is the main cause of teacher attrition**. During interviews with government officials and practitioners, it was emphasized that teacher attrition was mostly caused by retirement and sometimes by premature death or prolonged illness, while job dissatisfaction, mobility, and dismissal are only marginal reasons.

**The data shows a normal distribution of teachers by age, skewed somewhat towards the elderly.**

Figure 3.8 shows the age structure of teachers in Montenegro. Similar to most EU member states,[110] the most represented groups of teachers are from 30 to 39 years old and from 40 to 49 years old, while the youngest and oldest groups (20–29 years and 60–69 years) are the least represented. However, the percentage of teachers 60–70 years old who are still active is somewhat unexpected, given that Montenegrin legislation provides for the retirement of women at the age of 64 and men at the age of 66. Furthermore, the trend of a small number of young teachers with a downward trend (11.6 percent in the last five years) is particularly concerning. The domination of middle-aged and elderly teachers can slow down or even hamper education reforms that require substantial changes in the curriculum, teaching style and assessment practices, as well as in school ethos. At the same time, **the current trends indicate that, in the short and medium term, Montenegro could need new teachers** even though

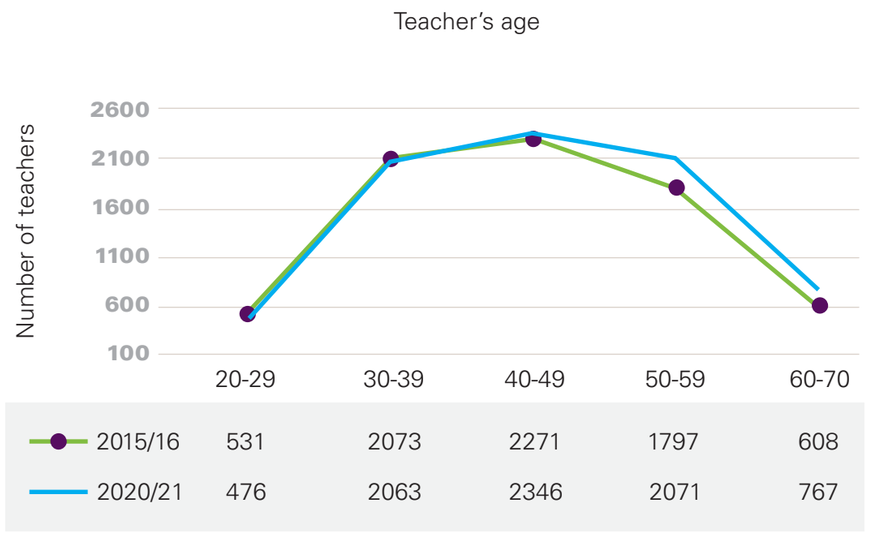
110 European Commission/EACEA/Eurydice, 2015. The Teaching Profession in Europe: Practices, Perceptions, and Policies. Eurydice Report. Luxembourg: Publications Office of the European Union.





the child population is decreasing. This should be a serious reason to invest in the modernization of the initial education of teachers and mentoring of novice teachers that can ensure a better-qualified teaching force with a full range of teacher competencies in the near future.

***Figure 3.8 Teachers' age structure***




*Source: MEIS*

### 3.4.1.4 Geographical distribution of teachers

Teachers in Montenegro are hired by schools, and no centralized teacher deployment procedures are in place, therefore the geographical distribution of teachers is more complicated to manage. **The number of teachers and the relative share of teachers per region remained fairly stable but also loosely followed regional changes in the population.** In absolute numbers, most teachers are located in the central region, followed by the northern and southern regions. During the period 2015–2020 growth was higher in the southern and central regions (+7.7% and 5.7%, respectively) compared with the northern region (+1.8%).

***Table 3.14 Teachers' regional distribution in absolute and relative terms***

| Montenegro | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | 2020/21 | % 2015–2020 |
|---|---|---|---|---|---|---|---|
| Central region | 3,474 | 3,505 | 3,455 | 3,581 | 3,639 | 3,671 | 5.7% |
| Regional share (%) | 48% | 48% | 47% | 48% | 49% | 48% | |
| Southern region | 1,606 | 1,602 | 1,622 | 1,618 | 1,634 | 1,730 | 7.7% |
| Regional share (%) | 22% | 22% | 22% | 22% | 22% | 23% | |
| Northern region | 2,221 | 2,259 | 2,212 | 2,230 | 2,216 | 2,261 | 1.8% |
| Regional share (%) | 30% | 31% | 30% | 30% | 30% | 30% | |
| Total* | 7,301 | 7,366 | 7,289 | 7,429 | 7,489 | 7,662 | 4.9% |

*Note: Differences between the numbers in this table and Table 3.10 stem from the difference in the time of data retrieval from the database. Source: MEIS*

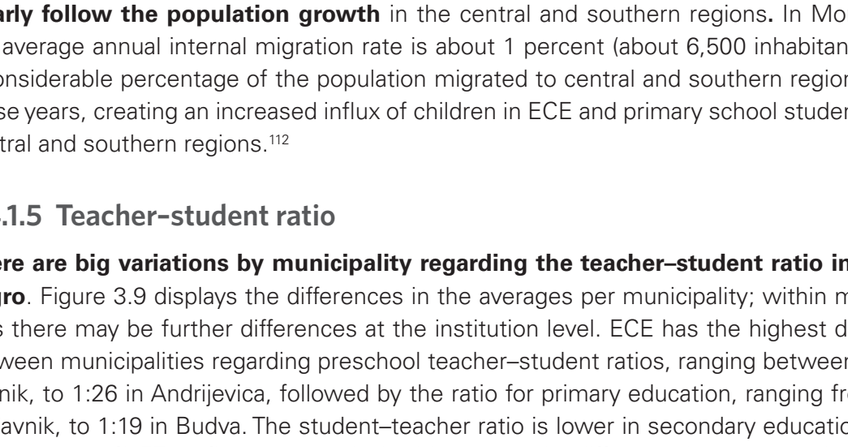
**Based on provisional population projections, the distribution of teachers should more clearly follow the population growth** in the central and southern regions**.** In Montenegro the average annual internal migration rate is about 1 percent (about 6,500 inhabitants)[111] and a considerable percentage of the population migrated to central and southern regions during these years, creating an increased influx of children in ECE and primary school students in the central and southern regions.[112]

### 3.4.1.5 Teacher–student ratio

**There are big variations by municipality regarding the teacher–student ratio in Montenegro**. Figure 3.9 displays the differences in the averages per municipality; within municipalities there may be further differences at the institution level. ECE has the highest disparities between municipalities regarding preschool teacher–student ratios, ranging between 1:4.5 in Šavnik, to 1:26 in Andrijevica, followed by the ratio for primary education, ranging from 1:2.7 in Šavnik, to 1:19 in Budva. The student–teacher ratio is lower in secondary education due to the structure of VET profiles and practical subjects, and the difference is most prominent when comparing Šavnik (1:2.2) and Danilovgrad (1:13.9). Given the demographic characteristics in Montenegro, the low ratio in some northern mountainous municipalities is understandable for geographical reasons and, thus, less surprising than the increased burden on ECE teachers in Andrijevica and other municipalities, and on primary school teachers in Budva, Tivat and Podgorica. Teacher–student ratios above 1:15 to 1:18[113] are unusual among OECD countries (the OECD average for upper and lower secondary education is around 1:12 to 1:13),[114] and high ratios can jeopardize the quality of education, especially at lower education levels.[115]

***Figure 3.9. Teacher–student ratios***

***a. Teacher–student ratio in ECE by municipality***




111 MONSTAT 2019 Internal migrations.

112 Ibid.

113 Teacher–student ratios are not the same as class sizes. Class sizes of 24 are actually recommended, while the ratios should be lower. Please see the explanation at https://www.oecd-ilibrary.org/education/education-at-a-glance-2020_315d95e6-en.

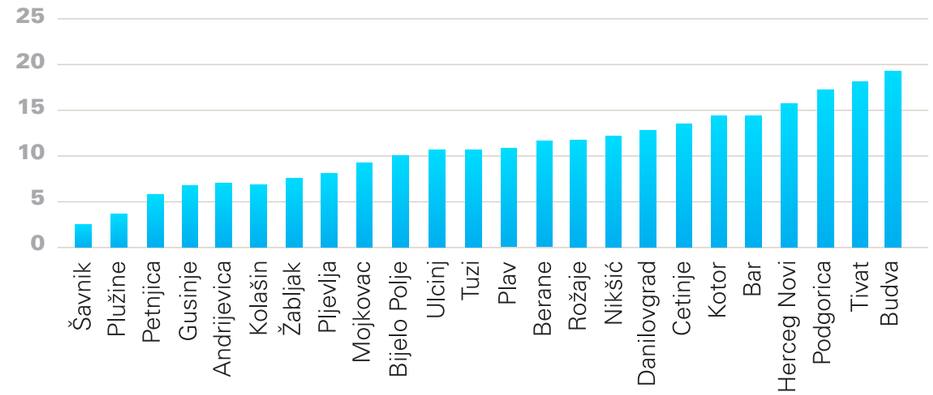
114 OECD (2020). Education at a glance, https://www.oecd-ilibrary.org/docserver/69096873-en.pdf.

115 https://www.oecd-ilibrary.org/docserver/eag-2007-26-en.pdf.

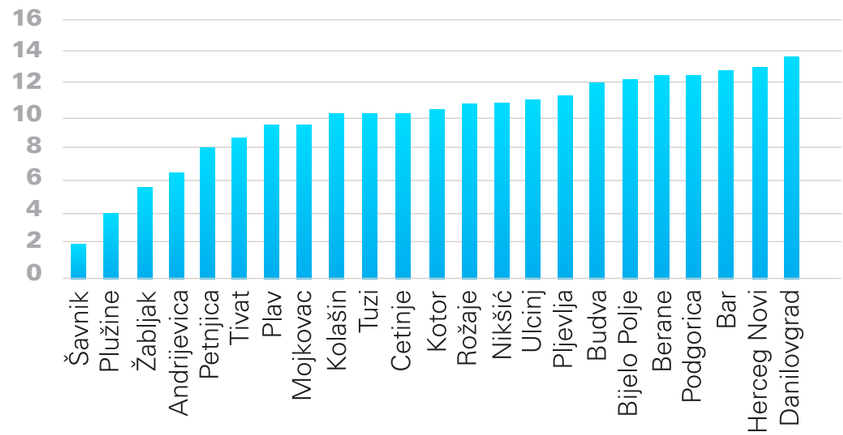




***b. Teacher–student ratio in primary education by municipality***




***c. Teacher–student ratio in secondary education by municipality***




*Source: MEIS*

*Note: For four municipalities, ECE data is not available, because the municipality only has school branches and data collected at the level of the institution as a whole, which for these four cases are in other municipalities, causing a slight inaccuracy.*

### 3.4.1.6 Education level of teachers

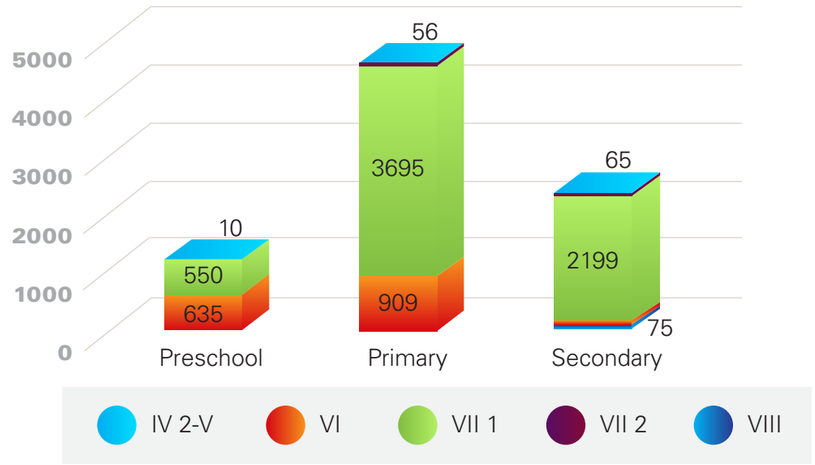
Most teachers have a university diploma of the VII-7 qualification level which is the equivalent of 180 or 240 ECTS in education. The number of teachers with a master's degree is negligible, despite the recommendations of the Strategy of Teacher Education 2017–2024,[116] EU policies and the Bologna process. In ECE and primary education Montenegro still employs a number of teachers educated at two-year pedagogical academies, that have since been abolished. There is a clear need to align the qualification level of teachers to European and regional practice, where obtaining a master's degree is increasingly required from teachers. This could facilitate

116 https://mps.gov.me/biblioteka/strategije.

the development of a wider range of teacher competencies, and contribute to obtaining a bigger share of study time for school practice, psychological and pedagogical skills and teacher research. In the 31 OECD countries participating in the Teaching and Learning International Survey (TALIS) in 2018, 44 percent of teachers had a master's degree.[117] In the Western Balkan region, the countries have also increased the initial education of teachers. For example, in Croatia the initial education of teachers lasts five years; in Northern Macedonia a teacher needs to have at least 240 ECTS initial education; in Serbia, starting in 2009, master's studies are mandatory for entering a teaching career.[118] New study programmes for teacher training are based on the 3+2 model, meaning that the requirement for the teaching job is 300 ECTS, i.e. the academic title of a master with 300 ECTS.

Figure 3.10 provides an overview of teachers in Montenegro by level of education.

***Figure 3.10 Teachers by level of qualification***




*Source: MEIS*

### 3.4.1.7 Future planning of education staff

**There is no policy document regulating the planning of human resources in the education sector.** This is highly worrying and in the absence of reliable baseline data about the current situation makes evidence-based future planning almost impossible. For the purpose of this study, the ESA team tried to come up with a rough estimate of the required number of teachers up until 2025 for the different education levels. However, without a good knowledge of the baseline situation it is not possible to make a good projection, therefore we recommend a high-quality baseline study be conducted in order to have a full understanding of the age, profile, qualifications and distribution of staff currently employed by municipalities. **Timely forecasts of the teaching staff needed for the education system are essential** – teacher preparation is a lengthy and costly process and without accurate forecasting the system might face shortages of qualified teachers or an undue loss of resources. Additionally, restructuring teacher training faculties to align their intake with the forecasted needs is also a process involving time for accreditation and teaching staff recruitment.

117 OECD (2019), TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en.

118 https://eacea.ec.europa.eu/national-policies/eurydice.





## 3.4.2 Qualitative aspects of the management of teachers

Most elements of contemporary teacher policy have, since recently, been present in Montenegro. Teachers' standards are defined, teachers' initial education is aligned to the Bologna process and consists of two tiers; teacher induction, licensing, professional development and career advancement are regulated by law, and dedicated institutions support and oversee the process.[119] However, many of the elements are not yet visible in practice, are not fully developed, or are burdened by contradictions and are in need of policy reformulations. Moreover, further clarity on the labour market for teachers is needed, both in respect of attracting a competent workforce and in respect of retaining it in the teaching profession.

### 3.4.2.1 Quality of initial teacher education

Teacher education has been under reform to improve the overall quality; the progress of **the reform process is not yet completed. Most notably, the development of the pedagogical, psychological and didactic knowledge and skills of prospective teachers need further strengthening.**[120] Since the beginning of the implementation of the Bologna Declaration in Montenegro (2004), steps have been taken to improve the education of future teachers, modernize the curriculum and train university staff in order to prepare future teachers for a more democratic and innovative educational process. However, some of the changes are no more than the re-composition of old curricula and programmes of teacher education, rather than substantial changes and improvements.[121] Teacher training is the exclusive competence of the University of Montenegro and is implemented at several faculties for various academic disciplines that are not exclusively teacher training institutions. As a consequence, the part of the study programme that is focused on preparation for the teaching profession (professional studies) is most often fragmented and neglected, compared to part focused on subject disciplines (academic studies). Table 3.15 illustrates the disparities in the representation of professional studies in the different study programmes at the University of Montenegro, while the share of the study programme consisting of professional studies in teacher education faculties in EU member states is often up to 120 ECTS (40%) or even more.[122]

119 The legal procedures regulating recruitment, induction and licensing are described in Annex 5.

120 Teacher Education Strategy 2017–2024, https://mps.gov.me/biblioteka/strategije.

121 Ibid.

122 European Commission/EACEA/Eurydice, 2013. Key Data on Teachers and School Leaders in Europe. 2013 Edition. Eurydice Report. Luxembourg: Publications Office of the European Union.

*Table 3.15 Initial teacher education in Montenegro: share of study programmes consisting of professional studies*

| Faculty | Study programme | Pedagogy/psychology courses (professional studies) | Ratio of p/p disciplines in curriculum |
|---|---|---|---|
| Faculty of Philosophy | ECE teacher<br>Primary school teacher<br>Pedagogy | General Pedagogy, Theory of Education, ECE/School Pedagogy, Didactics, Contemporary Education Systems, Intercultural Pedagogy, Social Pedagogy, Methodics (Mathematics, Language, Science), Early Education, Methodology of Research, Andragogy, General Psychology, Developmental Psychology, Pedagogical Psychology, etc. | Up to 75% |
| | Psychology | Social; Developmental; Pedagogical Psychology; Psychology of Learning, General Pedagogy, Research Methodologies (and various psychological disciplines not related to education) | Cca. 25% |
| | History<br>Geography<br>Sociology<br>Philosophy | General Pedagogy<br>Didactics | 2.5% |
| Faculty of Philology | Montenegrin Language<br>Serbian Language<br>Foreign Languages (English, French, Italian, Russian, German) | Theory of Education and Teaching | 1.3% |
| Faculty of Natural Sciences and Maths | Mathematics<br>Biology<br>Physics | Pedagogy | |
| Faculty of Fine Arts | Art Education | General Pedagogy<br>Didactics | 2.5% |
| Music Academy | Music Education | General Pedagogy<br>Didactics | 2.5% |
| Faculty of Sports and Physical Education | Physical Education | Pedagogy of Sports | 1.3% |
| Faculty of Montenegrin Language and Literature | | Pedagogy, Interactive Pedagogy, Teaching Process Organization, Pedagogical Psychology, Methodology of Teaching Montenegrin Language and Literature, Basics of Inclusive Education, Intercultural Education | 12.5% |





In addition to the profiles listed in Table 3.15, the vocational education system employs teachers of other profiles (technical, technological, medical, legal, economic, etc.) whose studies do not incorporate any of the pedagogical-psychological courses, and no provision is created for them to obtain this aspect of professional studies at a faculty that educates teachers.

**The problem of insufficient pedagogical, psychological and didactic knowledge and skills of future teachers, and especially of subject teachers, is also recognized in the Teachers' Education Strategy (2017–2024).**[123] This strategy is aimed at creating policies and practices for the initial education and professional development of teachers, which should provide support to teachers in assuming their complex role. The strategy also identifies as a special disadvantage of initial teacher education the "excessive fragmentation of study programmes/faculties, where the initial education of teaching staff takes place. As a logical consequence of excessive fragmentation there is excessive inequality and diversification of curriculum programmes".[124]

**An additional problem is that the content of seemingly similar courses may be different, and they might not meet the requirements of the Standards of Competencies of the Teaching Profession.**[125] The Standards are developed in accordance to best European practice, discerning a rich spectrum of competencies needed for teachers, which can serve as a guiding model for pedagogical-psychological-didactic education of subject teachers. Nevertheless, implementing the standards for guiding curriculum development in initial teacher education and teacher professional development will be a challenge.

**It would be essential to ensure that, in the course of teacher education curriculum reform, important missing links are not overlooked, but embraced and integrated into the new curriculum.** Such areas are, for example, formative assessment and ICT competences, which need to become basic skills of all teachers at all levels. Similarly, also cooperative learning, school development, inclusive education, violence prevention, social and emotional support to students, providing informative feedback, communication, networking, etc. are all transversal areas needed in the teaching profession – the new curricula should ensure an appropriate place for them for all teachers.

**The practical part of initial teacher education studies has been increased in various study curricula, and this process should continue**. In the last accreditation of the University of Montenegro from 2017, special attention was paid to the introduction of an appropriate corpus of practical studies in the current curricula. In some programmes, at the ECE and primary education levels, the proportion of practical classes and activities increased to about 25 percent. As a comparison, practical studies through various forms of visits and placement in practice schools constitute 30–60 ECTS at many teacher training institutions.[126] In that sense, a qualitatively significant step forward was made and the curricula were modified, supplemented with appropriate proportionally integrated units of practical studies. In the curricula for ECE, primary school education, pedagogy and psychology, special courses have been introduced for

123 Teacher Education Strategy 2017–2024, https://mps.gov.me/biblioteka/strategije.

124 According to information gained through interviews only a small part of the strategy has so far been implemented – mostly the part connected to the development of Standards of Competences for the Teaching Profession.

125 Standards of Competences for Teachers and Principals in Education Institutions. Bureau of Education, 2016.

126 European Commission/EACEA/Eurydice, 2013. Key Data on Teachers and School Leaders in Europe. 2013 Edition. Eurydice Report. Luxembourg: Publications Office of the European Union.

predominantly practical activities and school placement, constituting up to 25 percent (practicums in pedagogy, school practice[127] in the study programme for teacher education, etc.), while this is not the case with other study programmes for subject teachers, who are still entering the profession without any school practice during their initial education.

### 3.4.2.2 Professional development of teachers

The system of professional development of teachers responds to the requirement for continuous lifelong learning and upgrading of teachers' competencies, and encompasses a number of accredited seminars of various preselected authors/providers published in a catalogue[128] from which teachers can choose according to their needs. Participation in professional development programmes/seminars is a prerequisite for re-licensing, and also a requirement for the career progression of teachers into higher ranks, such as teacher mentor, teacher adviser, teacher senior adviser and teacher researcher. Aside from this professional development modality, teachers also organize school-based professional development.

While the Bureau for Education Services and the Centre for Vocational Education guide the process of teacher training through seminars, at the school level a team for professional development, led by professional development coordinators (school staff appointed to serve as coordinators), guides the professional development of the school staff, ensuring that it responds to the needs of the teachers and the school itself.

In the field of vocational education, employer-based training programme for practical education teachers is carried out. Employer-based training of teachers aims to support continuous professional development of teachers of vocational theoretical subjects within vocational education.[129] Nevertheless, more needs to be done to ensure that VET teachers develop the new skills that are needed to implement the new VET curricula on one hand, and their pedagogical and other teaching skills, on the other. For that reason, specialized teacher training by businesses and universities could be strengthened.

**Information on the overall quality and, most importantly, on the effects of the system of professional development of teachers in Montenegro is not yet available**.

**Although participation in professional development is a condition for re-licensing, according to the data obtained, annually only about 25–30 percent of teachers were enrolled in professional development courses even in the pre-COVID years, therefore further incentives need to be introduced and the quality of provision scrutinized in order to ensure better qualified teaching staff (see Figure 3.11).** Data on the level of professional development of teachers, and the number, type and duration of courses they have attended in a given timeframe is not available in the education information system of the ministry. Instead, only data about courses organized at the national level, by the year and number of teachers participating in these courses could be obtained.

127 School practice in "practice schools" is also recognized in the General Law on Education, 2017.

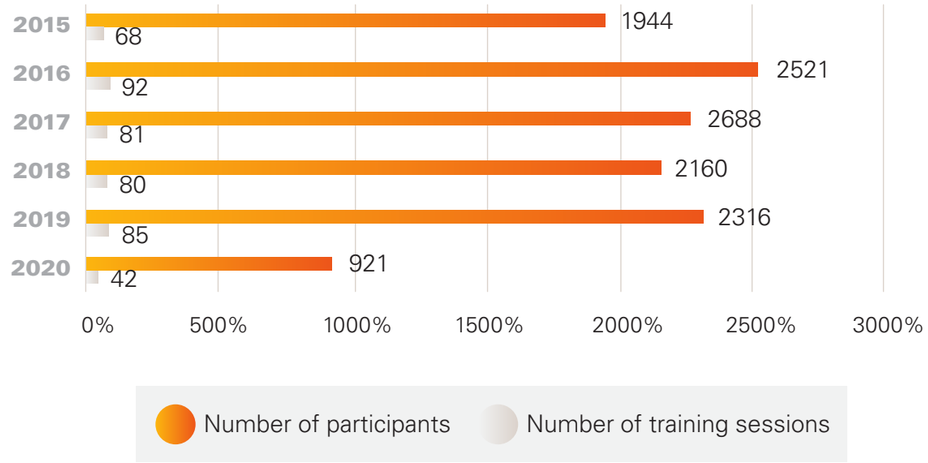
128 The Catalogue of Professional Development Programmes for 2019–20 and 2020–21 offers 360 programmes.

129 https://eacea.ec.europa.eu/national-policies/eurydice/montenegro/continuing-professional-development-teachers-working-early-childhood-and-school-education_en.





***Figure 3.11 Teachers' professional development 2015–2020 (in-service) in Montenegro***




*Source: Bureau for Education – Department for Professional Development*

**The effects of professional development programmes (and hence the justification for the investment in professional development courses) need to be maximized** by requirements to implement the new skills into everyday school practice and report back about it after several weeks (possibly in the format of a portfolio).

An additional concern is that, according to the results of interviews, **teachers with 20 or more years of experience very rarely participate in training for professional development**, and that this group of teachers makes up the largest number of those who reject changes in the education system, or only partially accept and implement them.

**Criticism pertaining to more conceptual reasons is also being aired.** According to these voices,[130] professional development in Montenegro is mostly implemented through training programmes/seminars, separated from practice, subordinate to management by experts and not fundamentally linked to the process of changing the whole institution into a learning community. There are clear advantages to upgrading the current model in the direction of a more systemic school-based model.[131] The systemic model of professional development deviates from the understanding of educational systems as open, complex, multidimensional, dynamic, procedural, questioning systems that "search for meaning", and construct their purpose and meaning through the process of their own development. In this way, teaching and learning become collaborative processes that take place in a system of relationships. Teachers are seen as part of the community and their professional development is seen as an integral process of developing their own practice in the immediate context of working and in improving the practices of kindergartens/schools.

130 Pavlović–Breneselović, D., Krnjaja, Ž. (2012): Perspektiva vaspitača o profesionalnom usavršavanju sa stanovišta sistemske koncepcije profesionalnog razvoja (Preschool Teachers' Perspectives On Professional Development from the Point of View of the Systemic Concept of Professional Development), Andragoške studije, 145–162.

131 A vocal protagonist of a systemic approach is Michael Fullan; see, for example, Fullan, M. (2007). The New Meaning of Educational Change. Routledge; Fullan, M. (1992). Teacher Development and Educational Change; and Michael Fullan and Andy Hargreaves. Teacher development and educational change.

**Current legislation is insufficiently supportive of professional development.** Detailed analysis of the laws and rules regulating the field of professional development, licensing, and obtaining higher professional degrees, as well as analysis of the information obtained during interviews and focus group discussions, lead to the general conclusion that the legislation is insufficiently precise, i.e. insufficiently elaborated, and therefore insufficiently binding when it comes to various aspects related to professional development and promotion of educational staff, and is especially weak on school-based professional development.

### 3.4.2.3 Working conditions and job satisfaction

**Working conditions in educational institutions are determined by labour legislation,[132] legislation related to education,[133]** and the Law on the National Qualifications Framework. Specific aspects, such as internship, the professional exam and teacher training and advancement are determined by the General Law on Education and Upbringing and sublegal acts issued by the MoESCS.[134] The MoESCS and educational institutions are responsible for issues related to the working conditions of teachers.

**To gather more information about job satisfaction, a survey was sent out to all teachers in Montenegro**. For the purposes of the ESA report, a short survey was created to gain an insight in teachers' attitudes regarding the reputation of the teaching profession in society, their satisfaction with salaries, with the material, infrastructural, pedagogical and didactic working conditions in educational institutions, as well as their current situation during the COVID-19 pandemic. The survey was distributed to all teachers in the Montenegrin education system with the help of the MEIS. In total, 3,645 teachers (48.4 percent of the total number of teachers) responded to the survey.[135] The overall results of the survey regarding teachers' job satisfaction that we received are summarized in Figure 3.12. A more detailed analysis of the current data (or future teacher surveys) could provide further insights in differences of the views of teachers between urban and rural schools, schools of different education levels, and teachers of different subjects.

132 A new Labour Act (OGM, 74/19) (Zakon o radu) ("Labour Act") entered into force in Montenegro on 8 January 2020, replacing the 2008 Labour Act (OGM, 49/08, 26/09, 88/9, 26/10, 59/11, 66/12, 31/14, 53/14 and 4/18) ("2008 Labour Act").

133 General Law on Education (OGM, 47/2017), and laws governing individual levels of education.

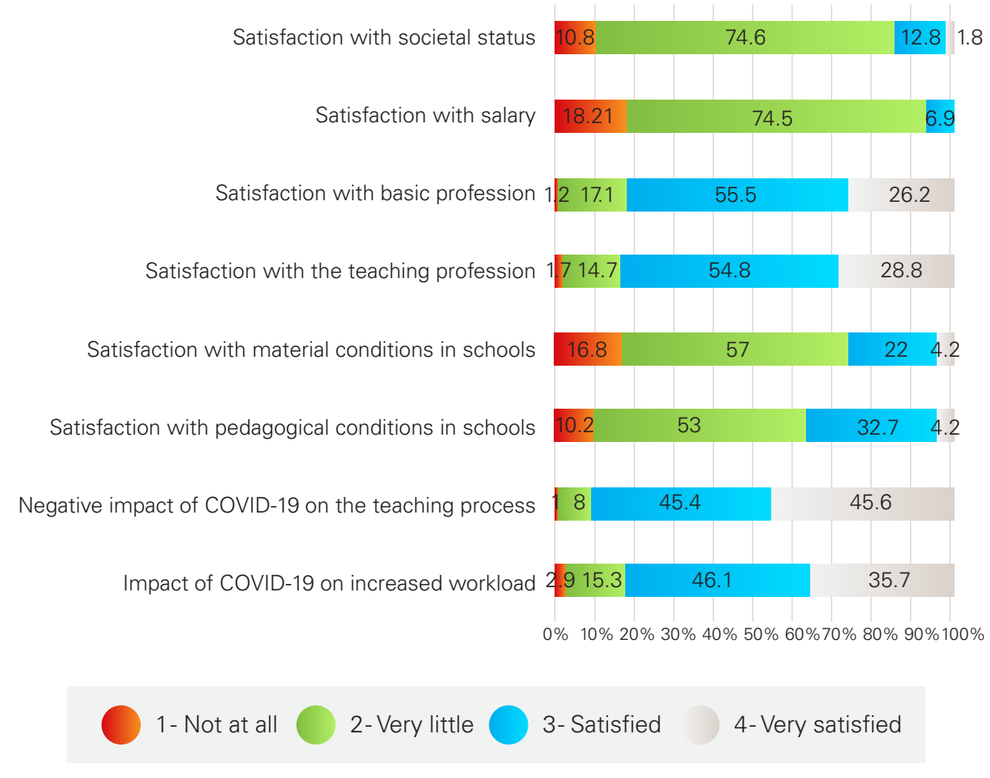
134 Rulebook on more detailed requirements, method and procedure of issuing and renewing working license for teacher, principal and assistant principal; Rulebook on types of titles, method and procedure of suggesting and awarding titles and other secondary regulations and decrees.

135 The sample of this survey was significantly balanced in terms of the segment of the education system in which they work, given the number of teachers by individual segments of the system. We received the largest number of answers from teachers working in primary education (65%). The largest share of responses was given by teachers with between five and 15 years of experience (1,277) and teachers with between 15 and 25 years of experience (997), which is 62.39 percent of the complete sample. When it comes to the regional distribution of survey responses, we note that teachers from the northern region were proportionally more interested in participating in the survey (34.2%) than teachers in the other two regions of Montenegro





***Figure 3.12 Teachers' job satisfaction Montenegro 2021***

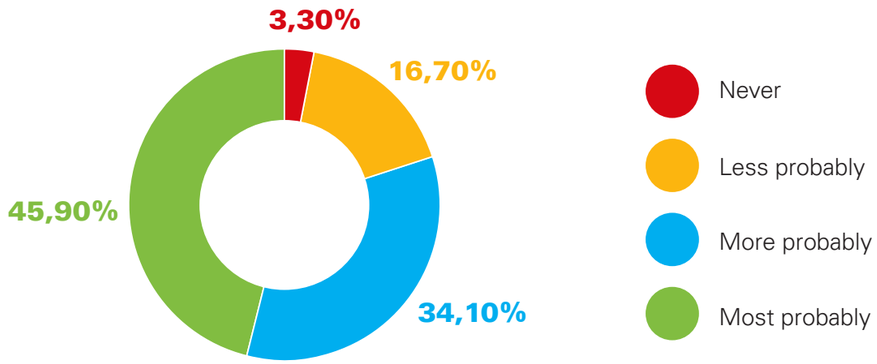



*Source: Own data collection with support from the MEIS*

**The general conclusion of this survey is that there is a high level of dissatisfaction amongst teachers with many aspects of their profession in the Montenegrin education system.** Teachers are very dissatisfied with the status of their profession in society and as many as 85.4 percent of them think that they are not valued at all or very little, while as many as 92.7 percent of them are dissatisfied with their salary. We find a very similar level of dissatisfaction of teachers in respect of the material conditions in schools (73.8 percent not at all satisfied or satisfied to a very small degree), while 63.2 percent of them are dissatisfied with the pedagogical working conditions in the classroom (number of classes, didactic material, equipment, internet connection, etc.). Teachers also believe that the current epidemic caused by COVID-19 has greatly hindered the implementation of teaching (91%), and that the volume of teaching work has increased significantly (81.8%).

**Positive answers prevail only when it comes to teacher satisfaction with their academic subject-related profession (81.7%) and satisfaction with the teaching profession (83.6%).** Consequently, the overwhelming majority of respondents would choose to be a teacher again, given the chance to do so.

***Figure 3.13 Would you choose the teaching profession again?***




*Source: Own data collection with support from the MEIS*

**As many as 80 percent of teachers, if they had the opportunity to choose again, would choose the same profession.** The reasons for such a choice remains an open question. These may result from the relative perks that the teaching profession has over some other professions (such as a reduced number of activities during the relatively long holidays, more flexibility in terms of use of the set number of working hours, etc.). This may also be attributed to the fact that the teachers responding to the questionnaire are governed by enthusiasm for school work and the pleasure of passing on knowledge and skills to the younger generations, as is predominantly the case with teachers in OECD countries participating in TALIS.[136]

136 OECD (2019), TALIS 2018 Results (Volume I): Teachers and School Leaders as Lifelong Learners, TALIS, OECD Publishing, Paris, https://doi.org/10.1787/1d0bc92a-en.



## 3.5 Conclusions and recommendations

**Human resources data** – Data on teachers is incomplete and for evidence-based planning of future teacher policies. Therefore, the existing data needs to be reviewed and the missing datasets identified and collected (e.g. certain demographic information, prior academic/subject competency, training records). Moreover, the available data should be integrated, scrutinized and a baseline study conducted that can answer all policy questions.

**Human resources trends** – The trends based on the currently available data show that some policies are being implemented (such as expanding the ECE network), but also indicate bottlenecks, such as: a comparatively low number of school psychologists that would be available to respond to students' and parents' needs for counselling and advising; the slow response of the teaching workforce to population mobility from the north to the south; high teacher–student ratios in certain municipalities; and an overall aging teaching workforce that will need to be replaced in the near and medium-term future. *Currently, there is not enough clarity on the structure of unemployed teachers, and data also indicates that the teachers' qualifications are not fully aligned with the dominant European, but also regional, requirements for 300 ECTS initial education, i.e. a master's degree. All these indicators need to be monitored and periodically reassessed to plan and implement human resource management that meets future demand for/supply of education staff.*

**Teachers' initial education and professional development –** The system of teachers' education and professional development is well-designed, encompassing all critically important elements and establishing meaningful links between them. However, both systems still face serious developmental challenges.

The **reform of initial teacher education** *needs to be sped up and focused on establishing powerful learning environments for prospective teachers through: (a) increasing the proportion of professional studies (psychological, pedagogical and methodological disciplines) and practical studies through school placement; and (b) increasing the relevance of their studies for contemporary teaching practices.* Periodically taking stock of how well teachers' competencies can develop in the given system (as well as the hitherto missing elements of formative assessment, ICT competencies, etc.), implementing the already developed action plan into the Strategy for Teacher Education and fostering international cooperation and accreditation of institutions would be some of the recommended routes. A sustainable solution for the acquisition of pedagogical and psychological skills of teachers in VET who are not educated at teacher education institutions needs to be urgently found – currently they are only required to supplement this deficit with 16 hours of training.

**Professional development** – *The system of professional development needs to be scrutinized as well. Being a large additional investment, its effectiveness needs to be ensured.* Also, the quality of the accreditation procedure, the quality of the courses and correspondence to teacher competences, the availability of programmes, the way that teachers select courses and what do they do after a training are all parts of the system that need to be scrutinized periodically. In parallel, a more systemic, contextual school-based system of professional development needs to be facilitated that can have a powerful role in mobilizing schools and teachers to find ways to overcome the quality and equity barriers described in the respective chapters. In all of these instances, however, authentic participation by practicing teachers, prospective teachers and students and parents needs to be ensured.

# 4 Equity

In line with the Education Sector Analysis Guidelines (2014), this chapter examines the extent to which enrolment patterns and school results vary according to key socio-demographic factors. In addressing equity in education, enrolment and learning achievement disparities will be monitored for vulnerable groups (such as: children needing additional support for learning due to disability; Roma and Egyptians; and children living in poverty), as well according to the following variables: gender, urban/rural, socioeconomic status, type of school and language of instruction.

The chapter starts with an overview of the measures the GoM has taken to support inclusiveness and equity in education. In Section 4.1, equity in enrolment and completion is assessed, including dropping out and out-of-school children – for children from the general population and for Roma and Egyptian children. Data on SEN children will be discussed in Section 4.2, as they are less detailed than those for the general and the Roma and Egyptian population. Section 4.3 examines equity in learning achievements for the general population and regarding the language of instruction. The areas for further development and improvement will be discussed at the end of the chapter.

The data presented in this chapter depicts those areas needing energetic improvement and further policy development, some of which have already been introduced, some are planned, but some are still pending. At the time of the current analysis, disaggregated detailed data on achievements and outcomes regarding children who need additional support (SEN), Roma and Egyptian children and children whose first language is not the language of instruction were not available to the ESA team, hence these variables were not included.

**Equity of education and inclusion in education is a priority area in Montenegro, which is discernible in policies, legislation and practice.** Montenegro has adopted strategies for inclusive education, participated actively in the Decade of Roma Inclusion and adopted The Strategy for the Social Inclusion of Roma and Egyptians in Montenegro (2016–2020)[137] looks at the rights of the child,[138] has developed drop-out prevention procedures and guidebooks,[139] and the National Strategy for Sustainable Development[140] includes social inclusion as an important area. Legislation also reflects this strategic priority, and effects of the new policies are discernible in education indicators as well.

137 The Strategy for social inclusion of Roma and Egyptians in Montenegro (2016–2020). Accessed at https://www.rcc.int/romaintegration2020/docs/6/mainstream-policies-targeting-roma-integration-in-the-western-balkans.

138 Strategy for Exercising the Rights of the Child 2019–2023. https://www.unicef.org/montenegro/media/11026/file/MNE-media-MNEpublication331.pdf.

139 Early School Leaving Protocol, 2017.

140 http://www.mrt.gov.me/ResourceManager/FileDownload.aspx?rId=280311&rType=2.

## 4.1 Gender, socioeconomic and geographical equity

### 4.1.1 Equal access to education

This section provides an assessment of equity in the school enrolment, analysing sources of inequality along several dimensions: sex, area (urban vs. rural), income (top quintile vs. bottom quintile) and, in addition, between Roma settlements and the general population of Montenegro. The analysis is provided through the lens of three equity indicators, compiled by our own calculations based on MICS access and completion data (and Monstat's time-series data for enrolment, where available). The equity indicators utilized are interpreted as follows:[141]

**The absolute gap** in the performance of two groups, A and B (such as: urban and rural populations, boys and girls, rich and poor), is calculated by subtracting the chosen performance indicator (intake rate or probability, gross enrolment rate, completion rate) of group A from that of group B.

**The parity index** comparing groups, A and B, is obtained by dividing the performance indicator (school coverage, access rate, retention rate, completion rate, repetition rate, learning results, and so on) of group A by that of group B. The parity index provides the factor by which it would be necessary to multiply the group B indicator (or divide the group A indicator) to achieve an equal value for both groups.

**Odds ratios (OR)** measure the comparative advantage (or disadvantage) of individuals belonging to group A over those belonging to group B in achieving a high outcome for a given school performance indicator, rather than a poor outcome. Interpreted as the probability of achieving a school performance level *e* rather than *f* is OR times more likely for an individual from group A than for one from group B.

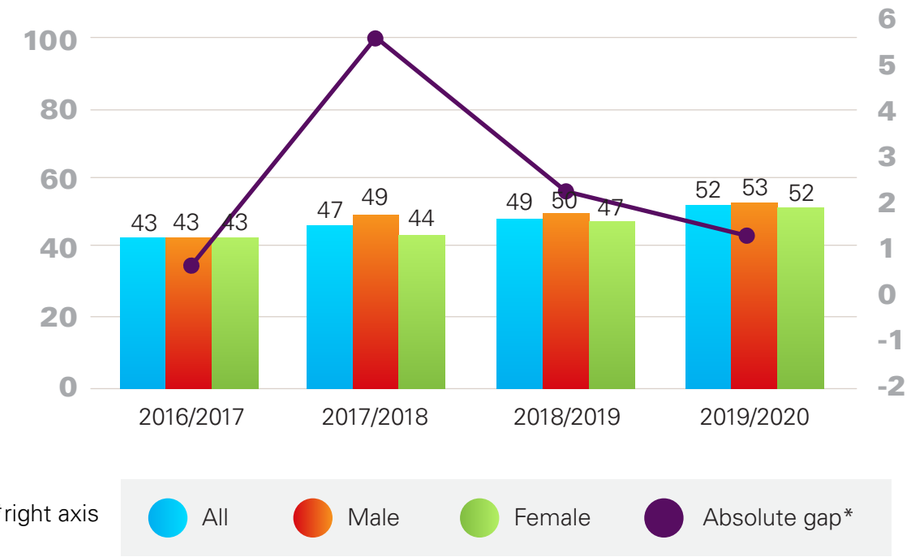
#### 4.1.1.1 Access by gender, area and income

**In the general population in Montenegro, gender gaps are not evident in access to preschool and primary education, while small differences occur in upper-secondary enrolment.** In ECE enrolment, the gender gap is small and appears to jump temporarily due to an outlier year (2017–2018), as shown in Figure 4.1.

141 ESA Methodological Guidelines, UNICEF, UNESCO, WB.

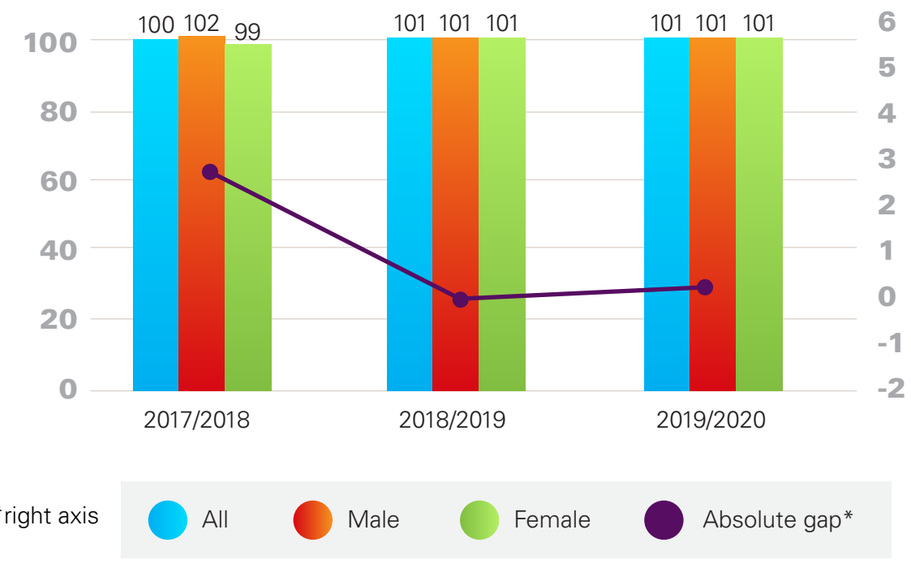


***Figure 4.1 ECE enrolment rates and sex gaps by year***




*Source: Own calculations based on Monstat data*
*Note: Enrolment rates are calculated based on the 0–5-year age bracket in the denominator*
*The value for the absolute gap is on the right axis*
*Equity indicators show virtually no absolute difference in primary school enrolment by sex at the national level, with the gap indicator at 0 as of 2018/2019.*

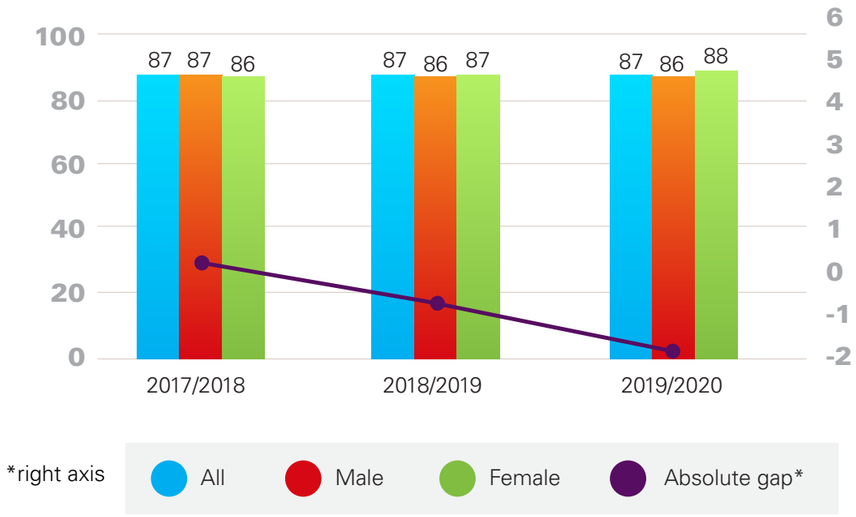
***Figure 4.2 Primary education enrolment rates and indicators by year***




*Source: Own calculations based on Monstat data*
*Note: Values greater than 100 due to the gross enrolment measure (not corrected for grade repetition)*
*The value for the absolute gap is on the right axis*

At the secondary school level, the absolute gap indicator for sex is small and shows a steady decline, switching from favouring boys to favouring girls between 2017 and 2020.

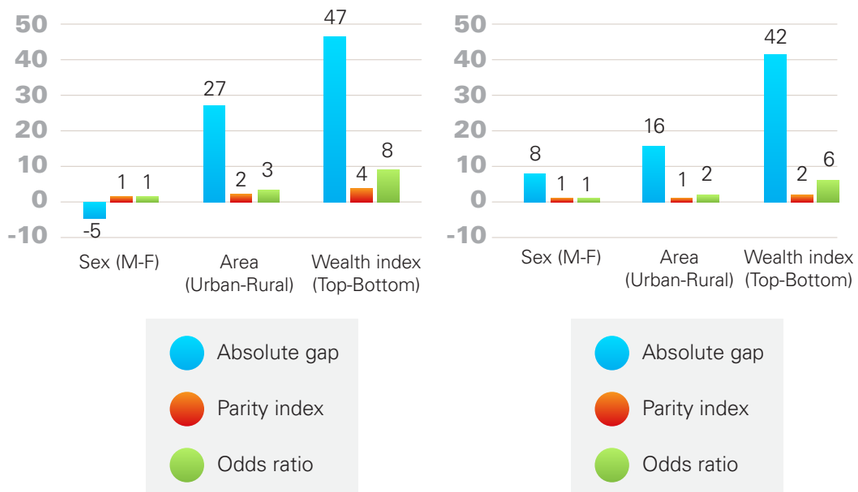
***Figure 4.3 Secondary education enrolment rates and indicators by year***




*Source: Own calculations based on Monstat data*
*The value for the absolute gap is on the right axis*

**On the other hand, wealth and other social economic indicators visibly influence enrolment rates.** Looking at the sources of inequality in early childhood education attendance, wealth inequality plays a very substantial role, with lower attendance in the bottom decile, as does living in a rural area, as well as the mother's education. As with ECED, PPE enrolment at 5 years of age is, in the general population, mainly determined by income and area – indicating that children from the top wealth quintile have a six to eight times higher chance of attending preschool education than those from the bottom quintile.

***Figure 4.4 General population: ECED (left) and PPE (right) enrolment rates, 2018***




*Source: Own calculations based on MICS data*

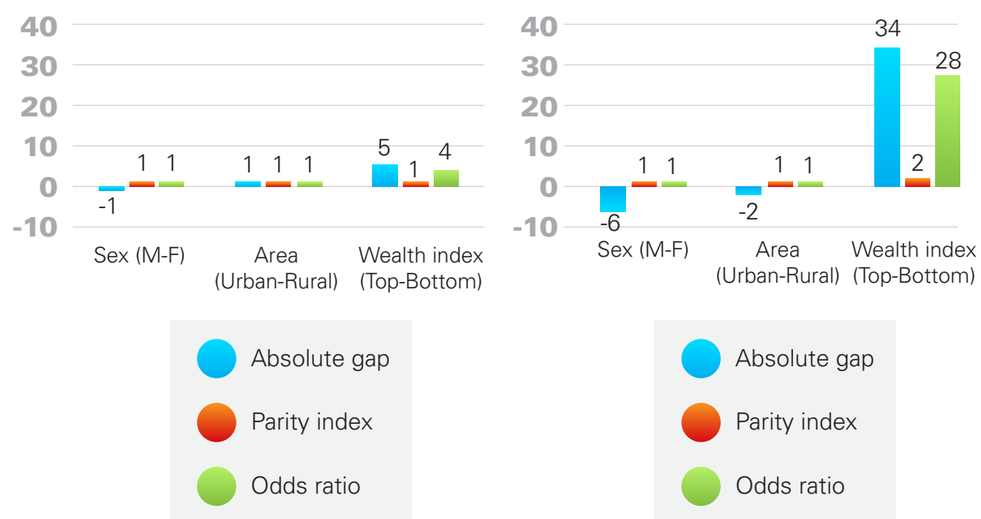




Furthermore, the findings from the MICS indicate the existence of significant differences in terms of the early development index (ECDI index)[142] – the average value of the index for children from the richest families is 92. While the index for children from the poorest families stands at 76. The average value of the index for children of highly educated mothers is 97, while its value is 76 in the case of children whose mothers have low education (those who completed primary school or lower). The average ECDI index for children attending preschool education is 97, while it remains significantly lower for children not attending it, with a value of 83. **These findings indicate that children from poorer families, children from rural areas, and children whose parents/guardians have a low level of education do not enjoy the same opportunities for early development and that, consequently, there is a need to involve them in preschool education to a greater extent and to support their parents in providing a more supportive family environment for their early development.**

Primary education attendance shows little variation by any of the three dimensions within the general population. Wealth is the only relevant determinant of secondary school attendance in the general population, and the effect is much higher than at primary school level, indicating a serious barrier for children with low wealth index.

***Figure 4.5 General population: primary (left) and secondary (right) net enrolment, rates, 2018***




*Source: Own calculations based on MICS data*

Looking deeper into the high odds ratio for secondary school attendance that is connected to wealth, the inequality is accounted for by the very low attendance rates of the poorest quintile (64.4 percent, compared to 87.1 percent for the second poorest, and 97.0 percent for the median quintile). This inequality stands out even more if put into the context of data from 2013 MICS (82.1% vs. the median 93.3%), on Table 4.1. **Table 4.1 shows a decrease in attendance at secondary school for children from the bottom quintile, for children from the southern region and for boys, occurring between 2013 and 2018 – a deterioration that should be monitored and explored more closely.**

142 The ECDI (Early Childhood Development Index) is reported on a scale of 0–100 and it indicates the percentage of children 3–4 years old who are developing in line with the developing norm.

***Table 4.1 Secondary school attendance in the general population***
***(Percentage of children of secondary school age attending secondary school or higher)***

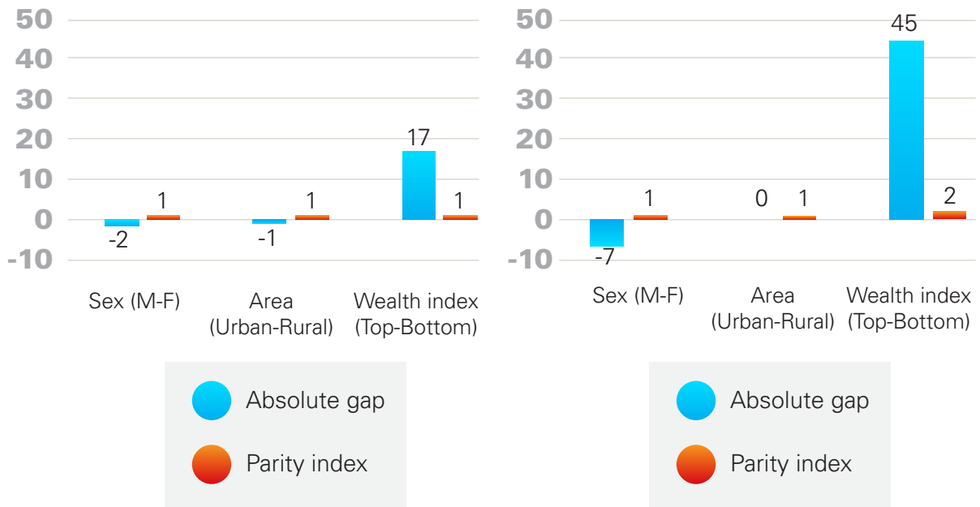
| | Gender | | Area | | Wealth quintile | | Region | |
|---|---|---|---|---|---|---|---|---|
| 2018 | Male | 85 | Urban | 87 | Top | 98 | North | 92 |
| | | | | | Median | 97 | Central | 87 |
| | Female | 91 | Rural | 89 | Bottom | 64 | South | 86 |
| 2013 | Male | 93 | Urban | 93 | Top | 98 | North | 92 |
| | | | | | Median | 93 | Central | 92 |
| | Female | 93 | Rural | 93 | Bottom | 82 | South | 96 |

*Source: MICS 2018 and MICS 2013*

### 4.1.1.2 Equal chances for completion regarding gender, area and income

Completion rates of primary school within the general population show little difference by gender and area, but wealth does play a significant role. The difference in completion rates according to wealth is much more pronounced at the secondary school level, as shown in Figure 4.6.

***Figure 4.6 General population: primary (left) and secondary (right) education completion rates, 2018***




### 4.1.1.3 Repetition rate and dropping out of school

Despite new policies for drop-out prevention and many support mechanisms introduced in the recent years, dropping out of school and being out-of-school in Montenegro has not been fully overcome, and is especially high among those living in Roma settlements. Since grade repetition is usually a first strong predictor of dropping out of school, we will discuss grade repetition together with dropping out and being out-of-school.

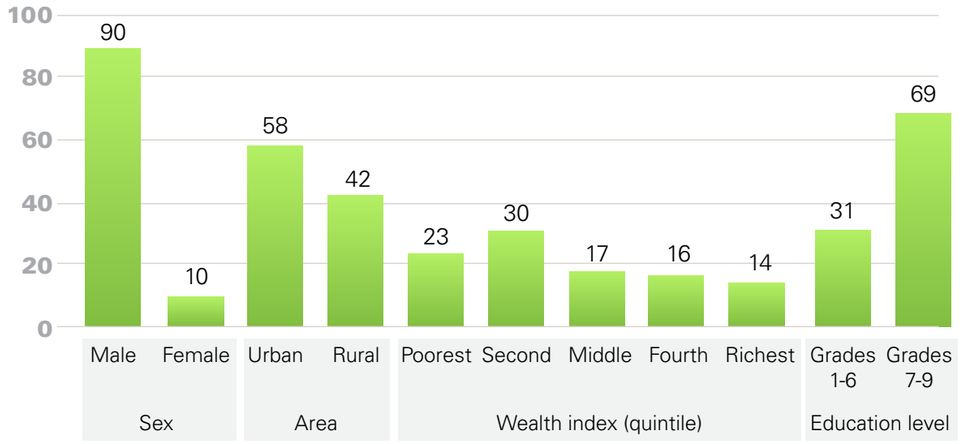




### 4.1.1.4 Repetition rates

Chapter 2 already showed that repetition within the general population is relatively low – 1.1 percent for primary school. The profile of those repeaters in primary school is heavily concentrated in the final grade, it is generally a male phenomenon (out the total number of repeaters, 90 percent are boys, as opposed to 10 percent being girls) and is more frequent in urban areas. Poverty also has an impact – children from poorer families are at higher risk of repetition during primary school than children living in wealthier families.

***Figure 4.7 General population, profile of primary school repeaters, 2018***



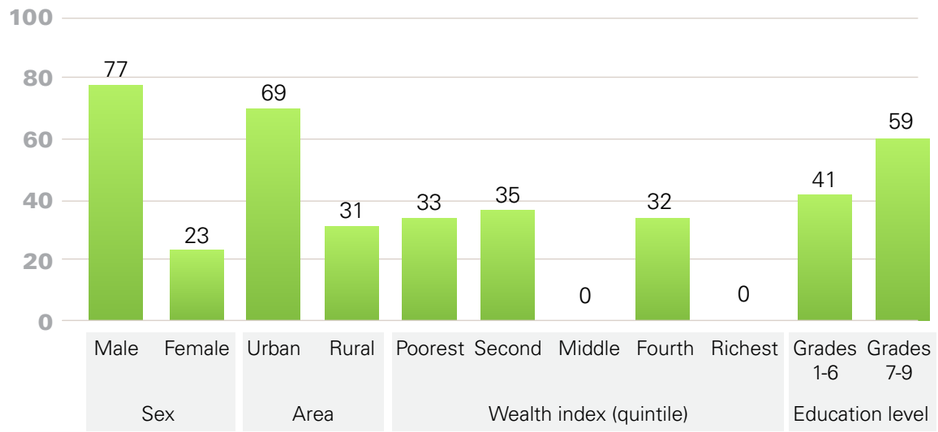

*Source: Montenegro Education Fact Sheets 2018: Analysis for learning and equity using MICS data. MICS-EA-GLE. UNICEF*

### 4.1.1.5 Drop-out rates[143]

Dropping out at primary school within the general population has a similar profile to the repetition rate – 1 percent. Dropping out happens most frequently in the ninth grade and mostly among male students and students from urban areas. Additionally, children from poorer families are at higher risk of dropping out of primary school than children from wealthier families – two out of three children who drop out of primary education come from the poorest families; no children from wealthier families or from middle-income families drop out of primary education.

143 The dropout rate refers in this context to the difference between access and completion rate of an education cycle (see Chapter 2, Figure 2.11).

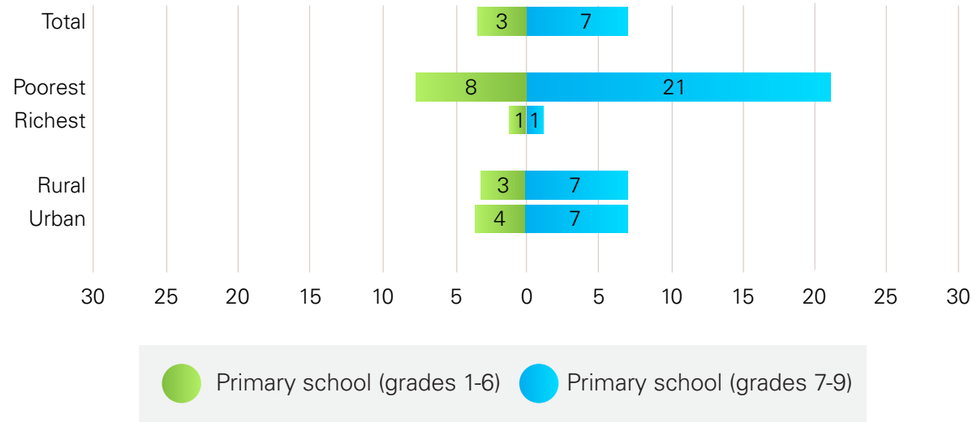
***Figure 4.8 General population, profile of those dropping out of primary school, 2018***




*Source: Montenegro Education Fact Sheets 2018: Analysis for learning and equity using MICS data. MICS-EA-GLE. UNICEF*

The percentage of primary-school-age out-of-school children is relatively low, lower for the age for grades 1–6 than for 7–9. It does not significantly vary by gender or area (urban vs. rural), but does increase in the lowest income group, especially for higher grades (7–9), as shown in Figure 4.9.

***Figure 4.9 General population: profile of primary out-of-school children, 2018***




*Source: Montenegro Education Fact Sheets 2018: Analysis for learning and equity using MICS data. MICS-EA-GLE. UNICEF*

Compared to 2013, the out-of-school child profile at secondary level has deteriorated in terms of income inequality, with both the gap between the bottom and top quintile growing, and the share of bottom quintile children not attending school increasing. Interestingly, viewed by region, the deterioration is seen only in the south (which had the lowest out-of-school share in 2013).





***Table 4.2 Secondary school out-of-school children in the general population (percentage of children of secondary school age out-of-school)***

| | Gender | | Area | | Wealth quintile | | Region | |
|---|---|---|---|---|---|---|---|---|
| 2018 | Male | 8 | Urban | 5 | Top | 1 | North | 6 |
| | | | | | Median | 2 | Central | 6 |
| | Female | 5 | Rural | 9 | Bottom | 23 | South | 11 |
| 2013 | Male | 5 | Urban | 5 | Top | 2 | North | 6 |
| | | | | | Median | 5 | Central | 5 |
| | Female | 6 | Rural | 6 | Bottom | 16 | South | 3 |

*Source: MICS 2018 and MICS 2013*

### 4.1.2 Equity in learning achievements

In this section we rely primarily on data from PISA and discuss the association of learning outcomes and non-cognitive characteristics[144] measured through PISA with the socioeconomic status of the child recorded through an index of educational social and cultural status, the status of schools on the dimension of advantaged vs. disadvantaged, and gender. The data used in this section refers to the PISA sample of 15-year-olds already enrolled in upper-secondary education or at end of primary education. Therefore none of the descriptions and analysis of PISA 2018 data refers to those groups of children who have already left the education system due to poverty, who live in Roma settlements or who left education for any other reason.[145] Neither do the PISA results diminish the findings about inequities detected at lower levels of education.

According to PISA 2019 data, Montenegro is among those PISA countries with above-average equity and below-average reading performance, displayed in Figure 4.10 in the lower-right quadrant, quite similarly to its placement in 2015 regarding equity and performance in science.[146]

144 Socio-emotional and motivation-related characteristics, as well as certain attitudes.

145 In 2018, when the last PISA was administered, only 80.3 percent of the cohort was enrolled in secondary education. A small number of 15-year-olds from the ninth grade were also added to the PISA sample, rendering the calculations even more complicated.

146 Dmitrovic, D. (2016?). PISA 2015 in Montenegro: Results. Podgorica: Examination Centre.

***Figure 4.10 Strength of the socioeconomic gradient and reading performance***




Strength of the relationship between performance and socio-economic status is above the OECD average
Strength of the relationship between performance and socio-economic status is Not statistically significantly different from the average
Strength of the relationship between performance and socio-economic status is below the OECD average

*Note: Socioeconomic status is measured by the PISA index of economic, social and cultural status.*
*Source: OECD, PISA 2018 Database, Table II.B1.2.3.*

Nevertheless, it has to be noted that SES-related differences in student achievements in PISA, even after the most vulnerable groups (such as Roma children) are no longer included in the PISA sample, still exist. The results of the PISA 2018 study indicate that there are significant differences in terms of learning outcomes, i.e. opportunities to develop key competencies, such as: reading, mathematics and science literacy among children attending primary and secondary education. **Children from the poorest families are far less likely to reach at least level 2 (the basic acceptable level of proficiency) in the three domains than those from the richest families (the parity index is 0.63).** The parity index is lower than in other countries, which means that the differences in the chances of developing the three key competencies to the level of functional literacy are significantly higher in Montenegro than in EU and OECD countries (where the parity index stands at 0.72).

**Inter- and intra-school variations in PISA regarding reading achievement**

In Montenegro, variations between schools regarding reading achievements are below-average for OECD countries. This means that the schools attended by 15-year-olds in Montenegro differ between themselves to a less-than-average extent compared to most other countries, which is an indication of a more equitable education system. Variations of reading achievements within schools are also lower than the average for OECD countries, which means that the range of reading performance by students in the same school is somewhat restricted, due to a generally low achievement. Equitable but high-performing countries typically would have a combination of a high intra-school and low inter-school variation pattern.

**Socioeconomic status, advantaged versus disadvantaged schools in PISA**

In PISA, a student's socioeconomic status is estimated by the PISA index of economic, social and cultural status (ESCS), a composite measure that combines into a single score the financial, social, cultural and human-capital resources available to students (see PISA 2018 Technical Report). In practice, it is derived from several variables related to students' family backgrounds that are then grouped into three components: parents' education, parents' occupations, and an index summarizing a number of home possessions that can be taken as proxies for material wealth or cultural capital, such as: possession of a car, the existence of a quiet room to study in, access to the internet, and the number of books and other educational resources available in the home. The schools' socioeconomic profile is measured by the schools' average PISA index of the ESCS of the children attending it.

There is ample evidence that the education system in Montenegro, for pupils aged 15, although performing below the OECD average, is among the more equitable systems among the PISA countries.

**Montenegro is among a small number of countries (nine altogether) where significant changes in performance have happened due to increasing equity in education. Comparing the 2009 and 2018 PISA results in Montenegro, the reading performance of disadvantaged students improved significantly, and the socioeconomic gap in reading performance narrowed significantly, although the performance of advantaged students did not decline.**[147]

In reading performance, the difference between the top and bottom quartiles of 15-year-old students regarding ESCS is significant: it amounts to a lagging behind of 55 points for disadvantaged students. However, this difference is lower than in the OECD countries in average, where it corresponds to a lagging behind of more than two years.

***Table 4.3 Performance in reading by ESCS quarters in Montenegro and the OECD***

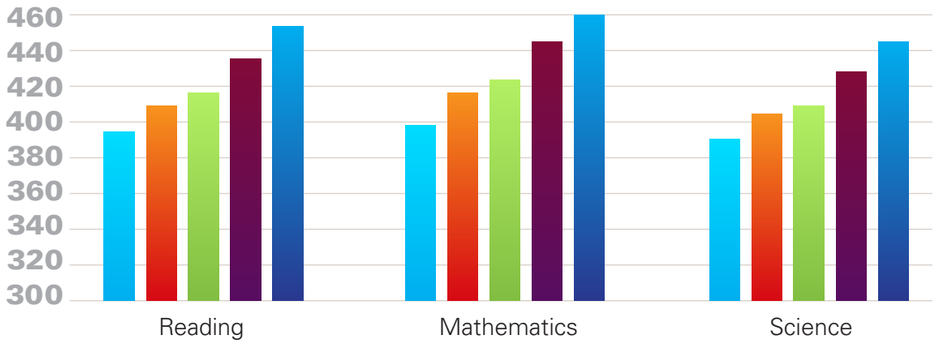
| | Montenegro | OECD |
|---|---|---|
| **All students** | 421 | 487 |
| **Bottom quarter of ESCS** | 396 | 445 |
| **Second quarter of ESCS** | 411 | 476 |
| **Third quarter of ESCS** | 428 | 500 |
| **Top quarter of ESCS** | 451 | 534 |
| **Top – bottom quarter** | **55** | 89 |

*Source: PISA 2018 Vol II. Fig II.2.3.*

The distribution of student performance in PISA across the ESCS quintiles in Figure 4.11 shows disparities that should not be disregarded. Since the PISA results for Montenegro are considerably low, belonging to the bottom quintile or quintiles according to ESCS seriously jeopardizes the prospects of students acquiring functional literacy in reading, mathematics and science.

147 PISA 2018 Vol II. Table II.2.1. (based on Database, Table II.B1.2.5.).

***Figure 4.11 Distribution of student performance in PISA across ESCS quintiles***




| | Mathematics | Reading | Science |
|---|---|---|---|
| Absolute gap | 66.3 | 58.9 | 55.4 |
| Parity index | 0.9 | 0.9 | 0.9 |

The social isolation index, or isolation index of advantaged and disadvantaged students, measuring the likelihood of disadvantaged (or advantaged) 15-year-old students being segregated into groups of students with a similar ESCS in Montenegro is the lowest among PISA countries – between 0.08 and 0.11 – compared to OECD average of around 0.20. In this respect, Montenegro is positioned closest to Norway.[148] The academic isolation index, or isolation index of high- and low-achieving students, is, on the other hand, very close to the OECD average around 0.20.[149]

In Montenegro, disadvantaged schools[150] have smaller class sizes.[151] The smaller class sizes might compensate for SES disadvantage, and, as already mentioned, there are *no differences in staff shortages or teacher qualifications* between disadvantaged and advantaged schools.[152]

*Academic resilience,* defined as the percentage of disadvantaged students[153] – according to their economic, social and cultural status on PISA – who are, despite these odds, scoring in

148 PISA 2018. Vol II. Fig. II.4.5.

149 PISA 2018. Vol II. Fig. II.4.4.

150 Advantaged and disadvantaged schools are defined in terms of the socioeconomic profile of the schools. All schools in each PISA-participating education system are ranked according to their average PISA index of economic, social and cultural status (ESCS) and then divided into four groups with approximately an equal number of students (quarters). Schools in the bottom quarter are referred to as "socioeconomically disadvantaged schools"; and schools in the top quarter are referred to as "socioeconomically advantaged schools" (PISA 2018 Results (Volume II): Where All Students Can Succeed).

151 PISA 2018 Vol II Table 2.5.1.2/2.

152 PISA 2018 Vol II Table II.5.1 and II.5.5.

153 In PISA, students are considered socioeconomically advantaged if they are amongst the 25 percent of students with the highest values in the economic, social and cultural status (ESCS) index in their country or economy; students are classified as socioeconomically disadvantaged if their values in the index are amongst the bottom 25 percent within their country or economy.





the top quarter of reading performance in their country,[154] is very high in Montenegro for its 15-year-old students. Montenegro is among the top 10 countries regarding academic resilience – close to 15 percent of students are academically resilient, i.e. reach the top level of performance in their country despite having a low ESCS.

According to further analysis, part of this resilience might derive from their parents' emotional support in Montenegro. Among students with high parental support there was a greater proportion of academically resilient students (24.8%) than among students with low parental support (11.2%). The 13.6 percentage point difference qualifies Montenegro among the highest-ranking countries in PISA 2018,[155] indicating that **parents are an important source of support for their children.** However, it has to be noted that this applies only for the PISA sample, while other studies highlight findings about stigmatization and fear of discrimination in school being critical factors determining school avoidance.[156]

There is a significant but small difference in the *perception of wellbeing* between students in the top and low quarters of ESCS. A higher percentage of advantaged students do not feel like outsiders in their school, and do not doubt their future plans when faced with failure. Similar to many other countries, students in advantaged schools have a higher feeling of self-efficacy than those in disadvantaged schools.

Students in Montenegro *hold relatively high expectations about completing tertiary education*. Montenegro is among a very small number of countries where there is no difference in students' career expectations regarding 10 preferred professions between advantaged and disadvantaged students (similar to that in South Korea and New Zealand, but also in some European countries), and a smaller-than-average difference compared to the OECD between advantaged and disadvantaged students regarding their expectations of completing tertiary education.

***Table 4.4 Percentage of students who expect to complete tertiary education***

| | All students | Disadvantaged students | Advantaged students | Advantaged – disadvantaged students |
|---|---|---|---|---|
| | % | % | % | % difference |
| ***Montenegro*** | *78.4* | *65.1* | *87.5* | *22.4* |
| **OECD average** | 69.0 | 51.0 | 86.1 | 35.1 |
| **Slovenia** | 66.0 | 43.9 | 86.9 | 43.0 |
| **Croatia** | 51.0 | 34.7 | 74.1 | 39.4 |

*Source: PISA 2018 Vol II, Fig. II.6.1.*

154 PISA 2018 Results (Volume II): Where All Students Can Succeed. pp 66.

155 PISA 2018 Vol II. Fig. II.3.2.

156 E.g. https://www.unicef.org/montenegro/en/reports/multidimensional-child-poverty-montenegro.

### 4.1.2.1 Gender differences in PISA and TIMSS

In both PISA and TIMSS achievements, gender differences are detected that indicate stable trends. Namely, the parity index related to the achievements of boys and girls shows that girls have a significantly higher chance of reaching the level of functional literacy in the domains of reading, mathematics and science (1.24). At the same time, the advantage that girls have is higher than that in EU countries (1.13) and OECD countries (1.12).

PISA 2018 reading performance shows a significant 30-point average gap in favour of girls, which is at the level of the average for OECD countries; a significant eight-point gap in favour of boys (close to the OECD average) for mathematics; and a small and insignificant gap in science in favour of girls, as shown in Table 4.5.

***Table 4.5 Gender differences in PISA 2018 achievements in Montenegro, compared to the OECD average and selected countries***

| | Reading | | | Mathematics | | | Science | | |
|---|---|---|---|---|---|---|---|---|---|
| | Boys | Girls | G–B | Boys | Girls | G–B | Boys | Girls | G–B |
| | Mean score | Mean score | Score diff.* | Mean score | Mean score | Score diff. | Mean score | Mean score | Score diff. |
| Estonia | 508 | 538 | **31** | 528 | 519 | **–8** | 528 | 533 | 5 |
| Slovenia | 475 | 517 | **42** | 509 | 509 | –1 | 502 | 512 | **10** |
| OECD | 472 | 502 | **30** | 491 | 487 | **–5** | 487 | 490 | **2** |
| B&H | 389 | 418 | **30** | 408 | 405 | –3 | 398 | 399 | 1 |
| Croatia | 462 | 495 | **33** | 469 | 460 | **–9** | 470 | 474 | 4 |
| MNE | *407* | *437* | ***30*** | *434* | *425* | ***–8*** | 413 | 418 | 5 |

** Bolded numbers are statistically significant differences at a 95-percent confidence level*

*Source: Constructed based on data in the PISA 2018 Database, Tables II. B1.7.1., 7.3, 7.5*

The results of TIMSS 2019 also uncovered gender differences in the same direction as in PISA 2018, indicating stable trends across the developmental and education levels between 10- and 15-year-olds. In science, girls had six-point-higher scores than boys and, additionally, they were better at the tasks measuring more demanding cognitive domains – applying and reasoning. In mathematics, boys had a five-point advantage, also showing higher scores in every cognitive domain.

In PISA, gender-related non-cognitive differences were also detected. As in many OECD countries, boys showed a statistically more positive attitude towards competition than did girls (–0.20),[157] while girls showed a statistically higher motivation to master tasks (0.085), although both groups have a relatively low index on this variable.

On the other hand, some of the common gender differences were not detected in Montenegro. Among 15-year-old top performers in mathematics and science, no gender differences were found in their career selection of typical male or female professions, unlike in many other OECD countries, as shown in Table 4.6.

157 PISA 20118 Database Vol II.





***Table 4.6 Gender differences in career selection***

| | Science and engineering professions | | Health-related occupations | |
|---|---|---|---|---|
| | Girls | Boys | Girls | Boys |
| **Croatia** | 17 | 20 | **32** | **13** |
| **Estonia** | 15 | 17 | 21 | 11 |
| ***Montenegro*** | *18* | *10* | *17* | *13* |
| **OECD average** | **14** | **26** | **30** | **12** |
| **Slovenia** | 15 | 23 | **31** | **12** |

*Statistically significant differences at 95% confidence level are in bold*
*Source: PISA 2018 Database Vol II*

Also, Montenegro was the only PISA country where a gender difference regarding fear of failure was not found, as shown in Table 4.7.

***Table 4.7 Fear of failure and gender in PISA 2018***

| Country | Boys | Girls | Gender difference (girls–boys) | Gender difference (girls–boys) |
|---|---|---|---|---|
| | Index of fear of failure | Index of fear of failure | Index of fear of failure, before accounting for reading performance | Index of fear of failure, after accounting for reading performance |
| | Mean index | Mean index | Diff. | Diff. |
| **Estonia** | –0.399 | 0.050 | 0.449 | 0.430 |
| **Slovenia** | –0.231 | 0.242 | 0.473 | 0.454 |
| **OECD average** | –0.213 | 0.188 | 0.401 | 0.384 |
| **Bosnia and Herzegovina** | –0.436 | –0.304 | 0.132 | 0.156 |
| **Croatia** | –0.372 | –0.079 | 0.292 | 0.261 |
| ***Montenegro*** | *–0.429* | *–0.419* | *0.010* | *0.028* |

### 4.1.4.4 Language of instruction in PISA

In PISA 2018, altogether 250 Albanian-speaking also students participated. Because of the big difference in sample size (250 vs 6,416), and an unaccounted-for difference in school type, conclusions can be drawn only very carefully. The distribution in Table 4.8 shows disparities between Albanian and Montenegrin-Serbian/Croatian/Bosnian-speaking children, with around 60–70 points on each of the PISA scales in favour of the latter.

***Table 4.8 Language of instruction and PISA results in mathematics, reading and science: a) mean values;***

| a) | | Mathematics | Reading | Science |
|---|---|---|---|---|
| | | | Main score | |
| **Language of assessment** | Albanian | 369.298 | 354.724 | 350.300 |
| | M-S/C/B (Yekavian) | 432.090 | 424.373 | 418.250 |

***b) absolute gap and parity index***

| b) | Mathematics | Reading | Science |
|---|---|---|---|
| **Absolute gap** | 62.79 | 69.65 | 67.95 |
| **Parity inde** | 0.85 | 0.84 | 0.84 |

## 4.2 Children with special education needs

Montenegro has well-developed policies and innovative practices regarding inclusive education of children who need additional support for their education (mostly corresponding to the OECD's definition of children with disabilities and learning difficulties).

The area of inclusive education is governed by the Law on Education of Children with Special Educational Needs,[158] as well as detailed strategies, developed in partnership and through consultations. The current Strategy for Inclusive Education[159] is valid for the period 2019–2025.

Major developments include:

- providing regular education for children in need of additional support and ensuring that most of these children are enrolled in regular schools;
- introducing so-called individual development and education plans (IDEPs) for children in need of additional support (educational and developmental goals are determined, the methods of reaching these goals are defined for each child with special education needs), as well as individual transition plans (ITPs) to help children transition to the next level of education or employment;
- introducing mobile teams financed by the Bureau for Education Services for assisting schools and teachers in organizing inclusive education;
- transforming special schools into resource centres[160] (three in the country) with seven mainstream schools featuring integrated classes – for students who, due to the severity and type of disabilities, cannot be fully included in regular classes and for whom joint teaching of individual subjects with peers in regular classes is organized;
- introducing modularized programmes in secondary vocational education;
- introducing teaching assistance in terms of providing access to education and educational attainments: technical assistance during classes for children with severe physical disabilities, moderate intellectual disabilities, with visual impairment, complete loss of hearing and autism, in accordance with the decision on referral.

158 Official Gazette of Montenegro, 80/04, with subsequent amendments and changes adopted in 2010 (Official Gazette of Montenegro, 45/10) and 2017 (Official Gazette of Montenegro, 47/17).

159 https://www.unicef.org/Montenegro/media/7876/file/MNE-media-MNEpublication312.pdf.

160 Resource centres implement the educational process for children with complex disabilities, habilitation, rehabilitation, early intervention, provide other educational institutions with advisory and professional support for the upbringing and education of children with certain types of disabilities, train teachers who perform educational work with children with special educational needs, facilitate the use of assistive technologies, sign language, systems for communication through images; prepare, adapt, create, print textbooks (Braille) and other teaching aids; lend for use didactic and teaching aids, equipment, various other aids and assistive technology.

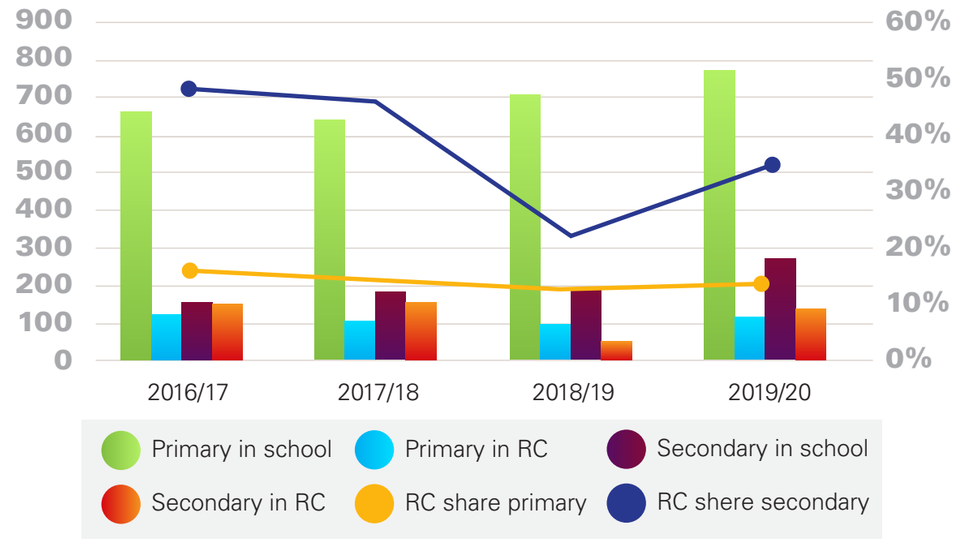




Data about the number of SEN children in mainstream education and in resource centres, in accordance to the Strategy of Inclusive Education, is presented from 2016 onwards. However, it is not possible to determine what percentage of SEN children are included in education, given that the number of children with disabilities at the national level is not available. For the purposes of the current analysis, certain indicators can be distilled from the available data that provide a glimpse into the effectiveness of the inclusive education policy in Montenegro.

Figure 4.12 shows a year-by-year steadily increasing number of SEN children in mainstream primary schools, while the number of children in resource centres is comparably lower, with certain yearly fluctuations. This strategically beneficial trend is not yet fully represented in secondary education, where the share of children in resource centres until 2020/21[161] was still notably higher than in regular schools than in primary education. **It should be a strategic priority to ensure that the inclusive trend in primary is being mirrored in secondary education as well.**

***Figure 4.12 SEN children in regular schooling vs resource centres (absolute number and share) by academic year***



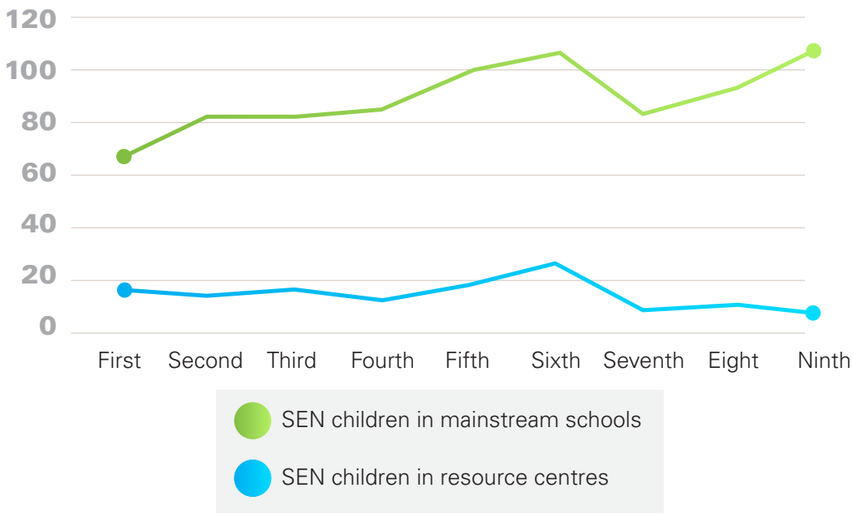

*Source: MEIS data*

Looking into the distribution of children by grades, Figure 4.13 portrays the inclusive trend of an increasing number of children in mainstream schools in each cycle of primary education, while between cycles, especially between the second and third cycles, stagnation is evident. It is to be noted that the eight and ninth grades show a clear and favourable divergence between the two curves – the number of children in mainstream education is growing, while the number of students in resource centres is decreasing. Figure 4.14, for secondary education, shows a different trend of decreasing number of students between the second and third years, both in mainstream schools and in resource centres, indicating that students with special needs are being enrolled in shorter education options and/or drop out before graduating from secondary education. Data obtained through interviews also points to the fact that children with special

161 Since 2020/21 was a year under the effects of COVID-19, it is not fully clear whether predictions can be made based on data relating to 2020/2021.

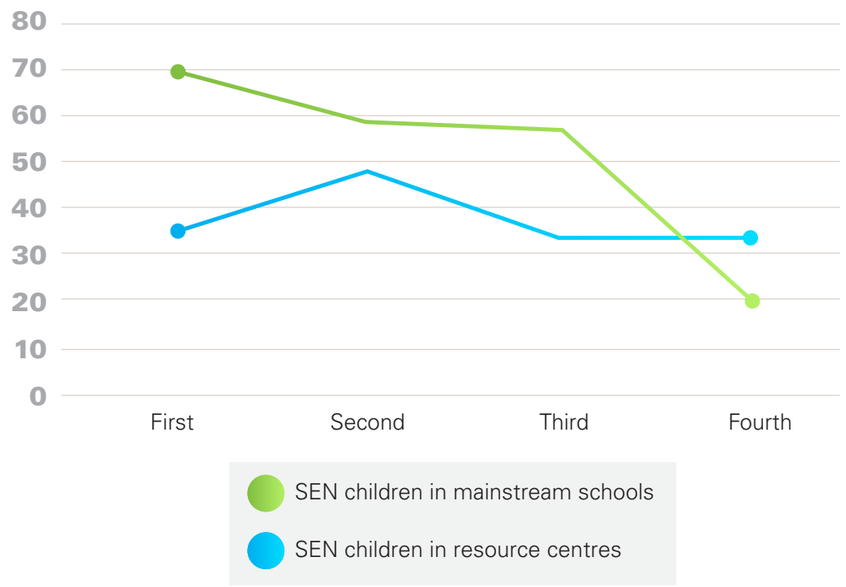
needs are most often enrolled in secondary VET tracks that are not valued in the labour market and do not lead to employment. All these indicate that further efforts are needed to fully establish the inclusive education policy in secondary education through, among other things, more consistent implementation of the individual transition plan, development of additional quality modularized vocational education programmes, as well as sensitization of employers.

***Figure 4.13 SEN children in regular schooling vs resource centres by grade in 2018–19 academic year (primary school)***




*Source: MEIS data*

***Figure 4.14 SEN children in regular schooling vs resource centres by grade in the 2018–2019 academic year (secondary school)***




*Source: MEIS data*



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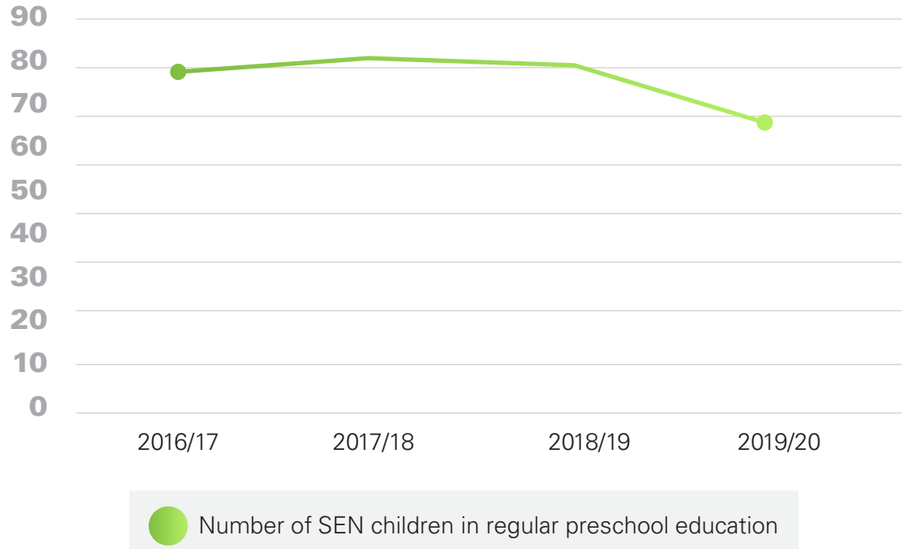
The policy of inclusive education has not yet gained enough visibility in preschool education. Figure 4.15 shows a small number of SEN children in regular preschool, including also a drop between 2018/19 and 2019/2020. This indicates the need to further promote early learning by both the health and education systems, as well as to provide systemic and quality support for early intervention and to prevent drop-out.

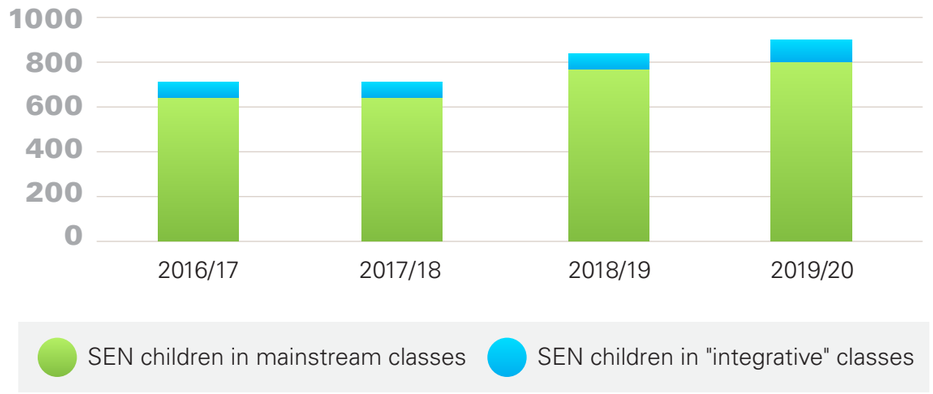
***Figure 4.15 Number of SEN children in regular preschool education by academic year***




*Source: MEIS data*

Figure 4.16 shows that not all children in mainstream schools are fully integrated. A small portion of them are enrolled in "integrative classes", where students are only partially segregated, i.e. have classes separately but mix with children from mainstream classes during part of the school day. The percentage of children in integrative classes remained approximately the same during the observed period.

***Figure 4.16 Number primary school SEN children in regular vs. "integrative classes", by academic year***




*Source: MEIS data*

## 4.3 Roma and Egyptian children

Education of Roma and Egyptian students came into focus in Montenegro during the international Decade of Roma Inclusion 2005–2015. Education of Roma children is developed in accordance with international good practice, laid out in national strategies and has resulted in an increase in the enrolment rate at all levels of education. A new Strategy for Inclusion of Roma and Egyptians is under development, since the timeframe for the prior one elapsed in 2020. Several measures underpin currently the education integration of Roma and Egyptian students, including the following, whereby Montenegro:

- piloted and implemented school desegregation strategies with notable success in certain locations;[162]
- increased the enrolment rate in ECE and abolished the enrolment fee for unemployed Roma families;
- introduced the profession of 'associate for social inclusion in education in primary education' in several municipalities;
- provides free textbooks for primary education;
- organizes travel to schools in four locations with a considerable number of Roma students (Podgorica, Nikšić, Berane and Cetinje);
- provides stipends for all Roma students enrolled in secondary and tertiary education[163] and placement in dormitories (it is expected that dormitories will become free-of-charge for Roma students, in the same way they are for SEN students);

162 This refers to the Roma Education Fund intervention in the Konik settlement, described in: Kovač Cerović, T. & Orlandić-Lukšić, T. (2016). Prevention of segregation in education, development of inclusive school enrolment policies and desegregation of schools (in Serbian). Belgrade: Office of the High Representative for Equity; and Nagy, A. I Kočić-Rakočević, N. (2015) The Benefits of Early Childhood Education and Desegregation: Case Study of an Educational Intervention in the Konik Camp in Montenegro. CIES, Washington D.C.

163 Please see table in Annex



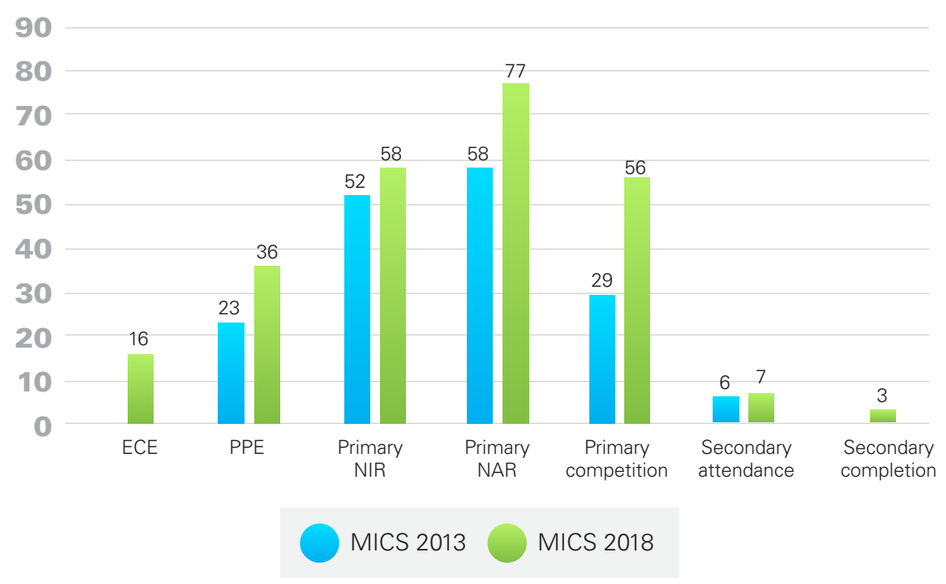


- introduced Montenegrin as the language of instruction courses for remedial learning for Roma students needing them, coupled with teachers' guidebooks;
- started to introduce affirmative action for enrolment in secondary and tertiary education by adding six points to the entry exam results;
- started preparations for introducing qualification courses for future teachers of Roma language and culture in schools as an optional subject in the third cycle, and preparation of the curriculum for the optional subject;
- introduced education and capacity building to prevent discrimination for teachers working in schools with Roma and Egyptian students.

### 4.3.1.1 Access disparities regarding Roma and Egyptian children

Access to the different levels of education for Roma and Egyptian children is highly uneven. Figure 4.17 shows an increasing percentage in 2018 from early childhood education, through pre-primary education and primary education, followed by a sharp decline in primary completion and an even sharper drop in secondary attendance and completion. Compared to 2013 there is a clear increase along all education indicators, nevertheless, the fact that only 56 percent of children from the settlements complete primary education and only 3 percent complete secondary education is highly alarming and calls for a strengthening or revision of all the measures implemented thus far for facilitating the educational inclusion of Roma and Egyptian children.

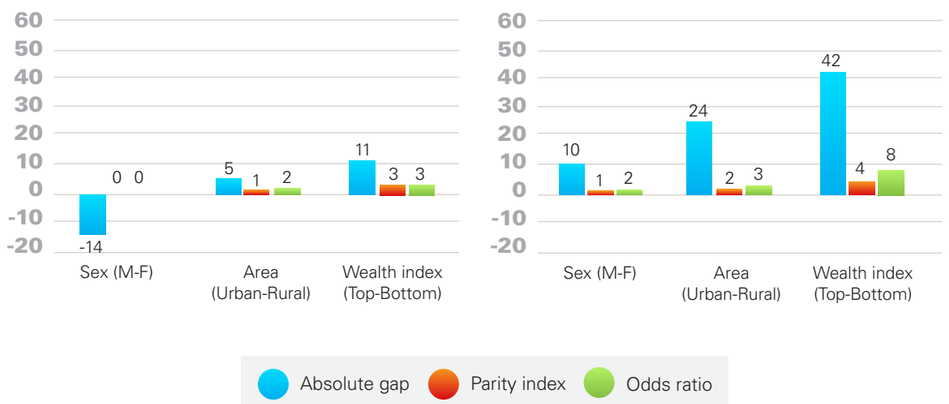
***Figure 4.17 Roma settlements – attendance and completion by level of education, 2013 vs 2018***




*Source: Own calculations based on MICS data*

Within Roma settlements, the effect of wealth and area on ECED attendance is less pronounced, but gender plays a role – boys' enrolment is lower at this level of education. PPE enrolment at 5 years of age is, on the other hand, mainly determined by income and area, as is the case in the general population. Interestingly, the difference between boys and girls observed at the PPE level is the opposite when compared to ECED.

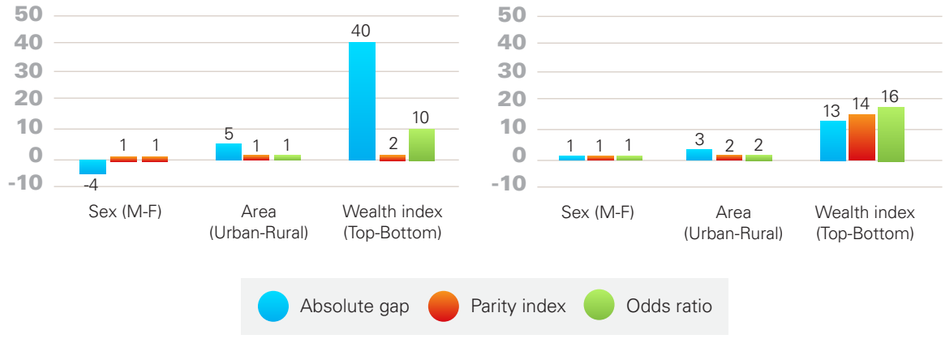
***Figure 4.18 Roma settlements: ECED (left) and PPE (right) net enrolment rates, 2018***




*Source: Own calculations based on MICS data*

Within Roma settlements, wealth plays an important role even at the primary school level, with much lower attendance by the poorest. Given that with much lower overall secondary school attendance wealth is the key determinant of attendance within the Roma population, being at the bottom of the income distribution is almost an absolute barrier to education.

***Figure 4.19 Roma settlements: primary (left) and secondary (right) adjusted net attendance rates, 2018***




*Source: Own calculation based on MICS data*

Compared to 2013 MICS data, changes are noticeable. Table 4.9 shows an increase in the attendance rate in every respect for girls and boys, in urban and rural areas, according to each wealth quintile, and in two of the three regions. The attendance rate decreased between 2013 and 2018 only in the southern region.





***Table 4.9 Primary school attendance in Roma settlements***
***(Percentage of children of primary school age attending primary school)***

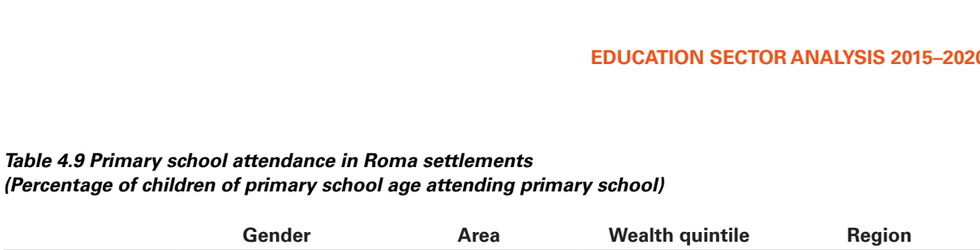
| | Gender | | Area | | Wealth quintile | | Region | |
|---|---|---|---|---|---|---|---|---|
| 2018 | Male | 75 | Urban | 78 | Top | 91 | North | 73 |
| | | | | | Median | 82 | Central | 79 |
| | Female | 79 | Rural | 73 | Bottom | 51 | South | 67 |
| 2013 | Male | 59 | Urban | 56 | Top | 70 | North | 56 |
| | | | | | Median | 58 | Central | 56 |
| | Female | 56 | Rural | 64 | Bottom | 45 | South | 76 |

*Source: MICS 2018 and MICS 2013*

### 4.3.1.2 Equal chances of completion for Roma and Egyptian students from settlements

The aforementioned attendance differences, particularly at the secondary school level, are even more pronounced when measuring school completion for Roma and Egyptian children living in settlements. The chances of a Roma student completing secondary education are seriously jeopardized.

***Figure 4.19 Roma settlements: primary (left) and secondary (right) education completion rates, 2018***




*Source: Own calculations based on MICS data*

Compared to 2013 MICS data, completion rates visibly increased among Roma and Egyptians from settlements. The increase applies for both boys and girls, urban and rural population, rich and poor. Table 4.10 again shows that in the southern region this process has been reversed and the completion rate decreased substantially; the same holds true, although to a less dramatic extent for the northern region as well.

***Table 4.10 Primary school completion in Roma settlements***

| | Gender | | Area | | Wealth quintile | | Region | |
|---|---|---|---|---|---|---|---|---|
| 2018 | Male | 59 | Urban | 57 | Top 40% | 71 | North | 47 |
| | | | | | | | Central | 57 |
| | Female | 51 | Rural | 49 | Bottom 60% | 43 | South | 54 |
| 2013 | Male | 30 | Urban | 32 | Top 40% | 47 | North | 56 |
| | | | | | | | Central | 56 |
| | Female | 29 | Rural | 20 | Bottom 60% | 15 | South | 76 |

*Source: MICS 2018, MICS 2013 and own calculations*

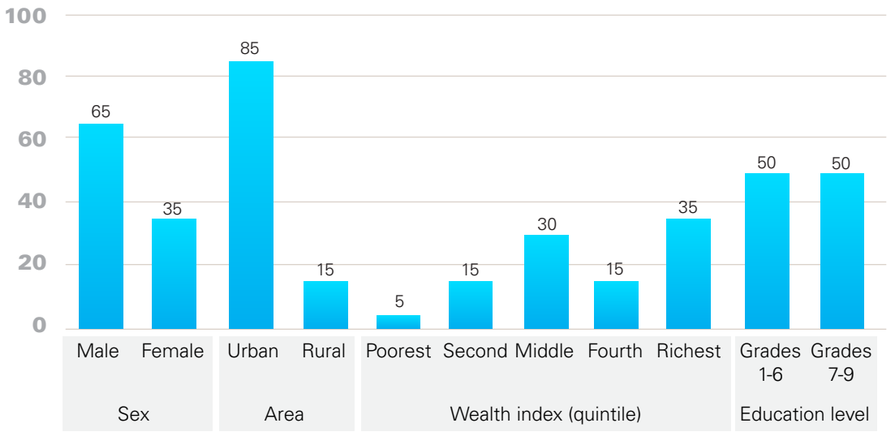
### 4.3.1.3 Repetition rate and dropping out from school

Despite new policies for dropping-out prevention and many support mechanisms being introduced in the recent years, dropping out of school and being out-of-school in Montenegro have not been fully overcome, and are especially high among those living in Roma settlements. Since grade repetition is usually a first strong predictor of dropping out from school, we will be discussing grade repetition together with dropping out and being out-of-school.

### 4.3.1.4 Repetition rates

For Roma students, the repetition rate stands at 2.4 percent. This rate is less male-dominated among the Roma, and much more pronounced in urban than rural areas. The highest repetition rates occur in the initial grades of each primary school cycle (fourth grade: 2.5 percent, and seventh grade: 6.3 percent).

***Figure 4.20 Profile of primary school repeaters from Roma settlements, 2018***



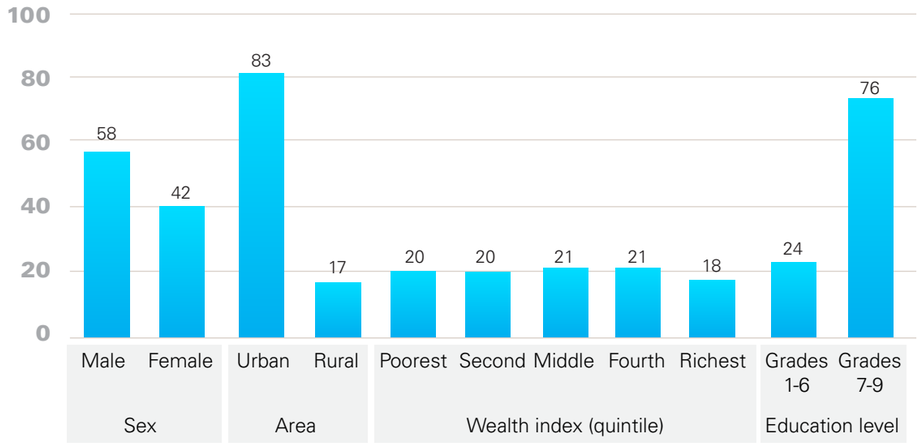

*Source: Montenegro Education Fact Sheets 2018: Analysis for learning and equity using MICS data. MICS-EAGLE. UNICEF*



### 4.3.1.5 Dropping-out rates

In Roma settlements the drop-out is rate is 7 percent. Out of the total number of students who drop out, most of them do so in the ninth grade (71%) and this total is less male-dominated among the Roma, and much more pronounced in urban than rural areas.

***Figure 4.21 Profile of primary school drop-out from Roma settlements, 2018***

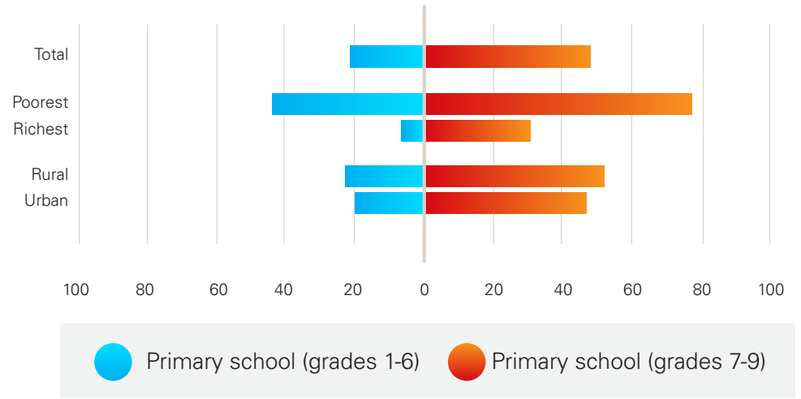



*Source: Montenegro Education Fact Sheets 2018: Analysis for learning and equity using MICS data. MICS-EAGLE. UNICEF*

### 4.3.1.6 Out-of-school children

The percentage of out-of-school primary-age children in Roma settlements is alarmingly high, especially in the third cycle of primary education and among the poorest – where the chances of being out-of-school are much higher than of attending school. Not finishing primary education strips the new generations of Roma and Egyptian children of the possibility of appropriate employment or further education, and, in turn, condemns them to continued deep poverty, further perpetuating the adverse pattern onto their own children.

***Figure 4.22 Roma settlements: profile of primary out-of-school children, 2018***




*Source: Montenegro Education Fact Sheets 2018: Analysis for learning and equity using MICS data. MICS-EAGLE. UNICEF*

Compared to 2013, the share of out-of-school children of primary school age within Roma settlements declined sharply, contributing to equity of the education system as a whole. However, Table 4.11 shows that within the Roma settlement subsample this decline, while present within all income subgroups, was driven to a much greater extent by the changes in the median and above-median income groups. The effect is so pronounced that the absolute gap between the top and bottom quintiles increased from 25 percent in 2013 to 38 percent in 2018 (the gap also increased between boys and girls, but declined between geographical areas), leading to a deterioration of equity within Roma settlements along the wealth dimension.

Although the percentage of out-of-school children decreased sharply between 2013 and 2018, children in the northern region, children in rural settlements and boys are worse-off, and more often among out-of-school children.

***Table 4.11 Primary school out-of-school children in Roma settlements (percentage of children of primary school age out-of-school)***

| | Gender | | Area | | Wealth quintile | | Region | |
|---|---|---|---|---|---|---|---|---|
| 2018 | Male | 22 | Urban | 19 | Top | 6 | North | 28 |
| | | | | | Median | 13 | Central | 19 |
| | Female | 17 | Rural | 22 | Bottom | 44 | South | 15 |
| 2013 | Male | 41 | Urban | 44 | Top | 30 | North | 44 |
| | | | | | Median | 42 | Central | 44 |
| | Female | 44 | Rural | 36 | Bottom | 55 | South | 24 |

*Source: MICS 2018 and MICS 2013*

## 4.4 Refugee and migrant children

Although refugees, asylum seekers and persons at risk of statelessness are entitled to many rights under national legislation, in practice they often face challenges in effective access to these rights, rendering them among the most vulnerable groups. Migrant children, similarly to children from other excluded and vulnerable groups can face multiple, nested layers of barriers in education structured around access, attendance, attainment and progression.[164]

In many countries that cater for refugee and migrant children,[165] barriers to access can substantially hinder the right to education through logistical problems, such as a lack of placement capacity in the neighbourhood school, distance to school, lack of transportation, and/or a lack of safety on the road. A lack of information on enrolment procedures and transportation to/from remote asylum facilities can also present a barrier.

Lacking educational solutions to overcome language barriers, psycho-social issues, as well as limited catch-up classes are among the most common challenges faced by refugee and migrant children in need of education. Inadequate or missing welfare support for education, and a lack of support for the non-academic needs of these students is a further challenge. Attendance can easily be hindered by adversarial peer relationships or a non-conducive school ethos, as well. Furthermore, barriers to educational attainment include differences between the curricula in the home and host countries, and insufficient pedagogical competencies and competencies for working in truly multicultural environments among the teachers. Schooling burdened by such barriers easily completes the cycle of pre-migration, migration and post-migration traumatic experiences. Afflicted children face three sets of traumas: the trauma of the past – the hardships in their homeland, forcing them to leave; the trauma of the present – a suboptimal life and deprived schooling experiences; and the trauma of the future – lacking hope and a plan.[166]

According to UNICEF data, as of 30 July 2021, no refugee/migrant children were enrolled in schools in Montenegro. In September 2021, 20 refugee/migrant children were enrolled in schools in Montenegro, while the target for 2021 was set at 50 children being included in education.[167] As a response to the needs of migrants and refugees, Montenegro mostly focused on healthcare support to migrants, on women and children, early childhood development, mental health and care, while education has not yet surfaced as an area needing attention.

In 2020, due to the COVID-19 pandemic and subsequent border closures, there has been a decrease of 38 percent in the numbers of new arrivals of refugees and migrants to Montenegro compared to 2019. In the first quarter of 2021, as the COVID-19 crisis eased, Montenegro recorded 426 new arrivals, including 97 children, which represents a recent increase in the number of families with children. During the second quarter of 2021 this number more than doubled, signalling a new wave of refugees passing through Montenegro – 988 new arrivals were recorded, including 399 children.

A trend towards longer stays in the country has been noticed as well – in 2020 the duration of a stay was one to a maximum of three days, while in 2021 this increased to more than seven days.

Although Montenegro seems not to be a country of destination for most refugees and migrants, all children have a fundamental right to basic education, even if they are in the country for a short period. Therefore, a trend toward longer stays will require developing policies and practices that effectively facilitate the education of migrant and refugee children in Montenegro, their enrolment in schools and efforts for supporting the development of their competencies, their integration and wellbeing.

164 UNICEF (2014). *Policy impact analysis: Providing additional support to students from vulnerable groups in pre-university education.* Belgrade: UNICEF and SIPRU.

165 See for example: OECD (2019), The Road to Integration: Education and Migration, OECD Reviews of Migrant Education, OECD Publishing, Paris, https://doi.org/10.1787/d8ceec5d-en; Cerna, L. (2019), "Refugee education: Integration models and practices in OECD countries", OECD Education Working Papers, No. 203, OECD Publishing, Paris, https://doi.org/10.1787/a3251a00-en; Dovigo, F (Ed.). 2018. *Challenges and opportunities in education for refugees in Europe: From research to good practices.* Leiden/Boston: Brill Sense.

166 Kovács Cerović, T. (2020). Minority education in forced migration: Education of migrants and vulnerable groups – trauma or protective factor? In: A. Hamburger, V. Volkan & C. Mancheva (Eds): Social trauma: An interdisciplinary textbook. Springer.

167 UNICEF. 2021. Refugee and migrant crisis in Europe. Humanitarian situation report no. 40.

## 4.5 Conclusions

### 4.5.1 Conclusion on disparities regarding: enrolment, completion, drop-out and truancy

The equity problems in Montenegro are multidimensional, and further studies need to be conducted to discern all the underlying causes of failure in school, dropping out or unenrolment. **The current analysis identified that equity problems are mostly connected to wealth indicators.** Being in the bottom quintile regarding family income is a major factor limiting the progression of a child through education. Disparities are discernible already at preschool-level attendance, and even more so in completing primary school, attending secondary, and completing secondary school. Some of these indicators even worsened from 2013 to 2018, such as secondary school attendance in the general population, dropping from 82 to 64 percent in the lowest SES quintile between 2013 and 2018. Within the Roma and Egyptian population from settlements, family income is also a major source of inequity, showing detrimental effects already at the level of primary education

Furthermore, the findings from the MICS indicate the existence of significant differences in terms of the early childhood development index (ECDI)[168] – the average value of the index for children from the richest families is 92, while the index for children from the poorest families stand at 76. The average value of the index for the children of highly educated mothers is 97, while the index's value is 76 in the case of children whose mothers have low education (those who have completed primary school or lower). The average ECDI for children attending preschool education is 97, while it remains significantly lower for children not attending it, with a value of 83. These findings indicate that children from poorer families, rural areas and children whose parents/guardians have a low level of education do not enjoy the same opportunities for early development and that, consequently, there is a need to involve them in preschool education to a greater extent and to support their parents in providing a more supportive family environment for their early development.

The fact that a large percentage of poor children do not complete primary school creates a risk of remaining in a vicious circle of poverty. In order to prevent this, urgent revision of the social and financial support measures is needed, such as stipends and student loans, to ensure compensation for the loss of family income incurred if the child continues its schooling. The current system is merit-based, and the rare supports that are poverty-based are too low to make a difference,[169] therefore a systemic and multisector approach should be firmly established in order to ensure better inclusion of children in need, and links with the social and child protection and health systems should be strengthened. Moreover, teachers' expectations need to be seriously scrutinized – there is evidence that the expectations towards poor children are lower, and function as a self-fulfilling prophecy (Rosenthal and Jacobson, 1968), and a caring, facilitative and stimulating discipline climate and motivational teaching style should be fostered, which is particularly important for students from poor communities. The current drop-out prevention protocol should be evaluated and strengthened as well.

168 The ECDI (early childhood development index) is reported on a scale of 0–100 and it indicates the percentage of children 3–4 years old who are developing in line with developing norms.

169 An overview table of financial supports to students is included in Annex 6.





Data on children with SEN provides a clear indication that the inclusive policies are being successfully implemented in primary schools, while in secondary schools the effects have only just now become observable. Additionally, more detailed and reliable data collection is needed in this area in order to guide policy and practice in the future.

### 4.5.2 Conclusion regarding learning achievements

**The analysis and data presented in this chapter indicate that, paradoxically, equity in education is already seriously compromised at the lower levels of education** (as described in the previous section) **resulting in a decrease of the student body at the upper-secondary level.** In that sense, the findings from PISA at upper secondary level that render Montenegro among more equitable countries is an accomplishment but it is not paintingshow the full picture.

Differences in performance are substantial between quintiles of the economic social and cultural status of families and between students enrolled in general secondary versus vocational secondary schools across all three PISA domains, i.e. in reading, mathematics and science. These differences are even more concerning, since the general low performance of Montenegro in PISA leaves those at the bottom of the distribution with very low chances for developing functional literacy at any acceptable level, thus jeopardizing their future employment options, and leaving them in a vicious circle of poverty. Additionally, students from lower ESCS families are worse-off also regarding indicators of wellbeing measured through PISA. Albanian-speaking students, tested with the Albanian version of PISA, are also showing a lower performance level – a finding that needs further exploration and scrutiny.

There are, on the other hand, positive signs of the system's efforts to compensate for some of the disparities. In Montenegro, unlike in many other PISA countries, schools in less affluent areas are somewhat better-off regarding ICT equipment. Also, ESCS differences do not reflect a low educational aspiration of students, as in most OECD countries, and students' academic resilience is quite high. These are all small but important assets that future education developments could capitalize upon.

Finally, gender differences in PISA are also breaking traditional expectations, and girls excel in many respects.

# 5 Cost and financing

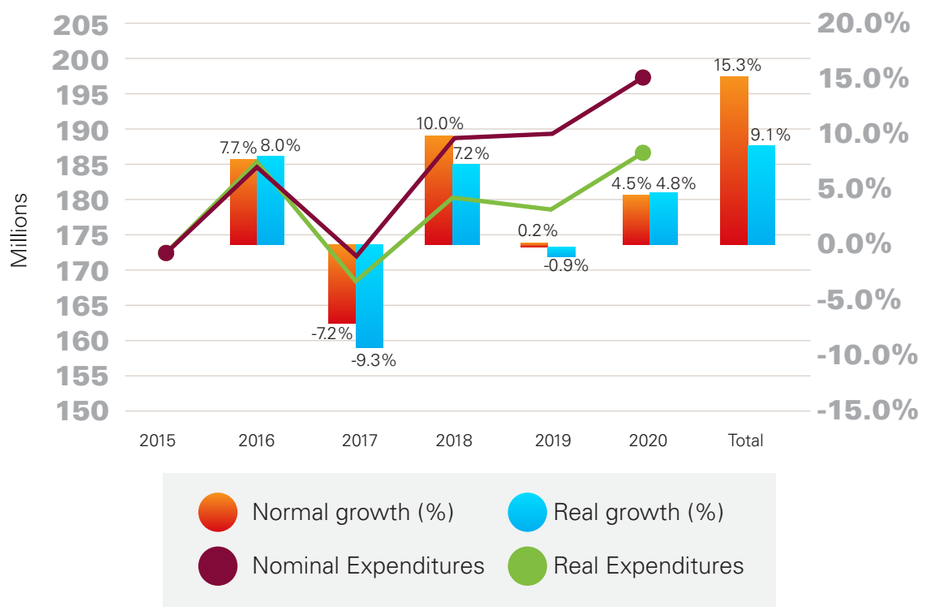
This chapter examines how the education sector in Montenegro is financed. The analysis focuses primarily on public financing, over which the GoM has direct control. The chapter is divided into three sections: The first analyses the evolution of the volume of public resources for education from an aggregate perspective. It analyses the evolution of spending per education level and according to its different components. It then analyses the education unit costs for each level. Section 5.2 examines the different sources of financing and looks at equity in financing and its potential impact on inclusive education.

## 5.1 Public education expenditure

### 5.1.1 Government education spending trends

Seen over the whole period 2015–2020, the GoM's expenditure on education has grown, also when factoring in changing price levels (see Figure 5.1). The total GoM expenditure on education was €171.7 million in 2015 and €197.9 million in 2020, a nominal increase of 15.3 percent. When adjusting for inflation, the rise in spending is about 9.1 percent over the period 2015 to 2019, equal to 1.5 percent real annual growth on average.

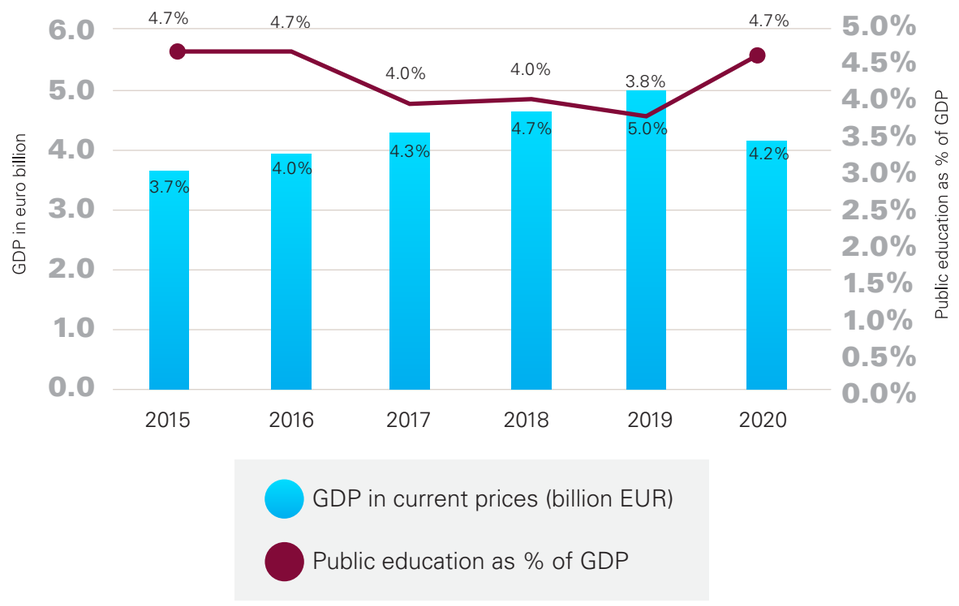
***Figure 5.1.*** **Nominal and real GoM expenditures on education, 2015–2020 (base year 2015) and nominal and real growth (%).**




*Source: MOF expenditure reports 2015–2020 using administrative classifications*

**The relative importance of education, measured as a share of GDP, however, decreased in the period 2015–2019 and this trend only shifted in 2020 as a direct consequence of the shrinking economy in 2020.** In 2015, the GoM's expenditure on education was 4.7 percent of GDP. Figure 5.2 shows that in 2019 this percentage had decreased to 3.8 percent, indicating that, in relative terms, a smaller proportion of national wealth was being invested in education. In 2020, GDP shrunk considerably as a consequence of COVID-19, while spending on education still grew by almost 5 percent (as shown in Figure 5.1), thereby creating an upward trend again in spending on education as a share of GDP. With a share of at least 4.7% of GDP spent on education in 2020, the ratio is back to the old levels of 2015 and 2016. However, this could well be a temporary effect.

***Figure 5.2 GoM spending trend on education compared with GDP, 2015–2020***

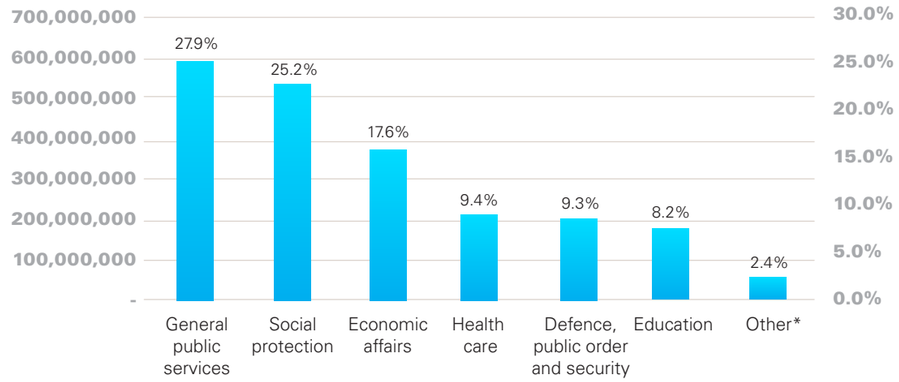



*Source: MOF expenditure reports 2015–2020 using administrative classifications*

**In 2020, Montenegro's spending on education was formally within the international benchmark of spending of 4–6 percent of GDP, as recommended by the Education 2030 Framework for Action. Without the crisis caused by COVID-19, the share would have been considerably lower.** In Montenegro, the exact amount of private expenditure on education is unknown, but is considered relatively small at an estimated 0.1 percent of GDP, although exact figures are missing (see Section 5.2). The total national expenditure on education (both public and private) in the period 2017–2019 was therefore approximately 3.9 percent of GDP, just at the lower end of the international benchmark. In 2020, the ratio improved again, but this is mainly the consequence of the overall decline in GDP.

**Montenegrin public expenditures on education are relatively low by international standards**. The share of education expenditures as a percentage of total public expenditure increased from 7.6 percent in 2015 to 8.2 percent in 2017, as shown in Figure 5.3.[170] International benchmarks recommend allocating 15–20 percent of public expenditure to education. The current allocation is significant below this target.

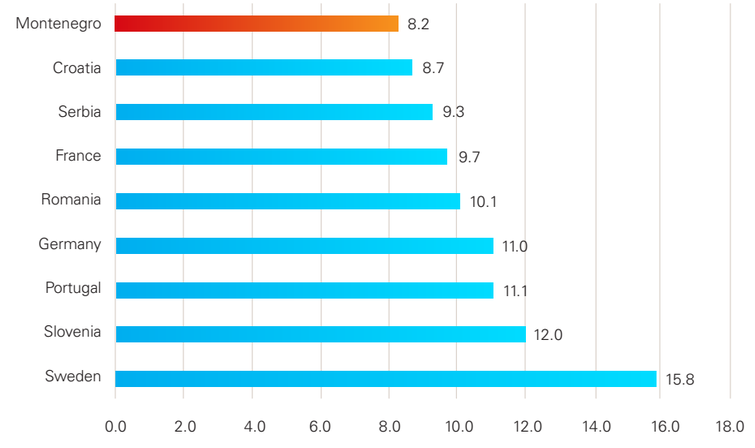
***Figure 5.3 Share of GoM expenditures by functional classification, 2017***




*Source: MOF expenditure report 2015–2017. No data received for 2018 and 2019*
** Other includes sports, culture and religion (1.9%), housing and community affairs (0.2%) and environmental protection (0.2%)*

**Even though Montenegro has increased its relative share from 7.6 percent in 2015 to 8.2 percent in 2017, thereby lowering the gap with its peers, it is still at the lower end of the spectrum.** In Figure 5.4, the share of expenditure on education of total government expenditure in Montenegro is compared with a sample of randomly selected EU countries and regional neighbours. The figure shows that only one country in this sample meets the international benchmark, and that is Sweden, with an expenditure of 15.8 percent in 2017. Most other countries' spending on education lies in a range between 9 and 11 percent.

***Figure 5.4 Comparison of the share of expenditure on education as a percentage of total government expenditure for a selection of countries (%)***



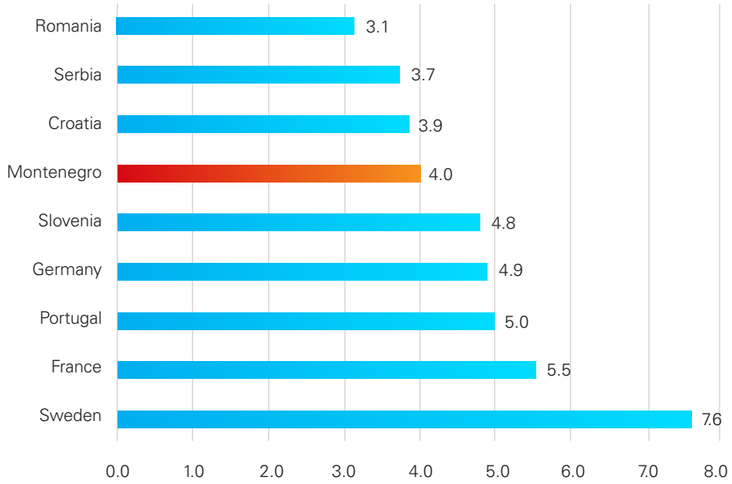

*Source: World Bank, World Development Indicators.*

170 For international comparison, we used the data set for 2017 because this is the most recent year in the world development indicator database with data available for cross-country comparison.

**In 2017, the most recent year for which data is available to make a cross-country comparison, Montenegro had exactly met the lower end of the international target of 4–6 percent of GDP spend on education and performed better on this indicator than Croatia, Serbia and Romania.**

Figure 5.5 shows a comparison of the GoM's spending on education as a percentage of GDP for the same sample of countries. Only Sweden performed above this target. The majority of countries in the sample fell exactly in the range of the benchmark (Slovenia, Germany, Portugal and France).

***Figure 5.5 Comparison of education expenditure as a percentage of GDP for a selection of countries, 2017****




*Source: World Bank, World Development Indicators*
** 2017 is the most recent year for which a full dataset is available in the database to make such a comparison.*

**Montenegro performs relatively better on this second indicator.** When comparing the outcome of these two indicators, one must keep in mind the relative income levels of the country. Governments can only directly control the first indicator regarding the share of total expenditure spent on education, but they have less control over the GDP indicator, which depends on the characteristics of the economy and the coverage of the tax base. In Montenegro, the size of the informal economy is believed to be relatively large. The proportion of the informal economy out of total GDP is estimated at around 28 to 33 percent, while over 20 percent of work is informal.[171] Obviously, a large informal sector weakens the GoM's tax base.

### 5.1.2 Spending by level

**Public financing of the education system is primarily organized at the central level.** The MoESCS covers all expenses, including salaries of employees, current expenses, expenditures on electricity bills, maintenance, minor capital expenditures, etc. The funds that Montenegro allocates for education are earmarked in the Education chapter of the budget. In addition, funds are allocated by the GoM for education in the "Capital Budget", for improvement of school infrastructure through new construction and larger rehabilitation works. At the municipal level, there is some funding for education provided from the municipal budgets. Those represent a very small share of the overall education budget (and are not significant for this analysis). The funds from the municipal budgets cover the needs of ongoing maintenance, small-scale investments, material costs and expenditures on electrical energy in public institutions within the municipalities.

171 Commission Staff Working Document, Economic Reform Programme of Montenegro (2019–2021), Commission Assessment.

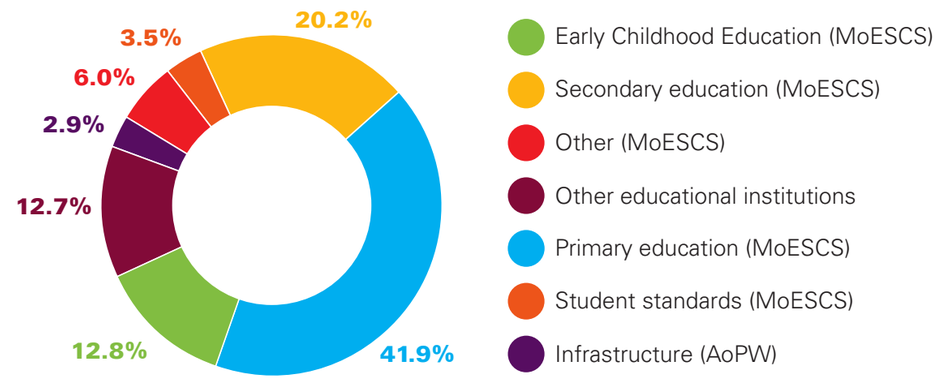




**In total, the MoESCS is responsible for 84 percent of public education expenditures.** The Administration of Public Works is responsible for 3 percent of public education expenditure, which is fully used for school infrastructure. The remaining 13 percent is spent amongst several other autonomous education institutes, of which the University of Montenegro (UCG) is the biggest, with an 11-percent share. See Section 5.1.5 for an analysis on higher education. The analysis below first considers the MoESCS's expenditures.

Figure 5.6 shows the relative share of spending per level of education/subcategory of all education-related expenditure in 2020.

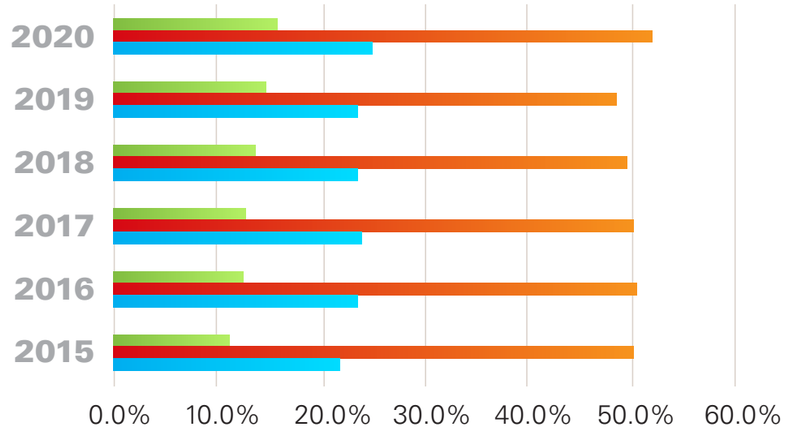
***Figure 5.6 Public spending on education per level of education in %, 2020****




*Source: MOF Expenditure Report 2019 and Administration of Public Works Report 2019*
** The subcategory for student standards refers to spending on scholarships, accommodation and nutrition. The category 'Other' (MoESCS) includes combined smaller line items of the MoESCS, for instance, for administration and the Institute for Textbooks and Education Assets which falls directly under the responsibility of the MoESCS.*

**The three biggest levels (namely ECE, primary education and secondary education) represent 87 percent of the total expenditure of the MoESCS.** When comparing spending on these three levels over time between 2015 and 2020, Figure 5.7 shows that the relative shares of all three levels have increased.

***Figure 5.7 Relative share per level of education of MoESCS education expenditures.***




| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|
| ECE | 11.1% | 12.3% | 12.6% | 13.6% | 14.6% | 15.8% |
| Primary education | 49.9% | 50.4% | 50.3% | 49.9% | 48.7% | 52.0% |
| Secondary education | 21.9% | 23.6% | 23.9% | 23.5% | 23.5% | 25.0% |

*Source: MoESCS Expenditure Reports 2015–2020*

### 5.1.2.1 Early childhood education

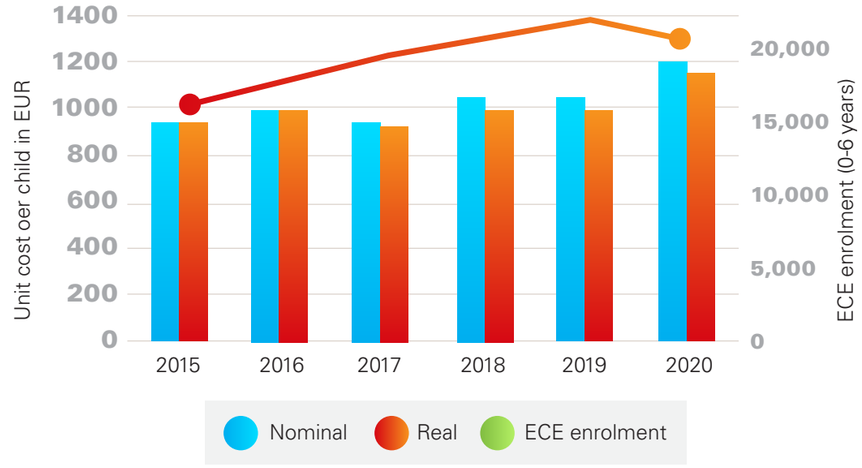
**Enrolment in public ECE increased substantially between 2015 and 2019 and so did the related cost and spending per child. In 2020, the relative share spent on ECE continued to increase, even though enrolment decreased, presumably due to COVID-19 school closures, thereby delaying new intake.** Figure 5.7 already showed that, in particular, ECE received increasing budget priority in recent years. The MoESCS's expenditure rose continuously from 11.1 percent of the total education budget in 2015 to 15.8 percent in 2020. This is equivalent to 0.6 percent of GDP, compared to an OECD average of 0.7 percent of GDP.[172] In absolute terms, spending rose by 63 percent from €15.4 to €25.1 million over the whole period, equal to an increase of 55 percent in real terms. During the same period, enrolment in public ECE institutions also increased substantially by 23 percent (also see Chapter 2).

172 https://www.oecd.org/els/soc/PF3_1_Public_spending_on_childcare_and_early_education.pdf.





***Figure 5.8 Enrolment and spending per child on ECE, 2015–2020 in nominal and real terms***




*Source: Own calculations based on Monstat and MoESCS expenditure reports*

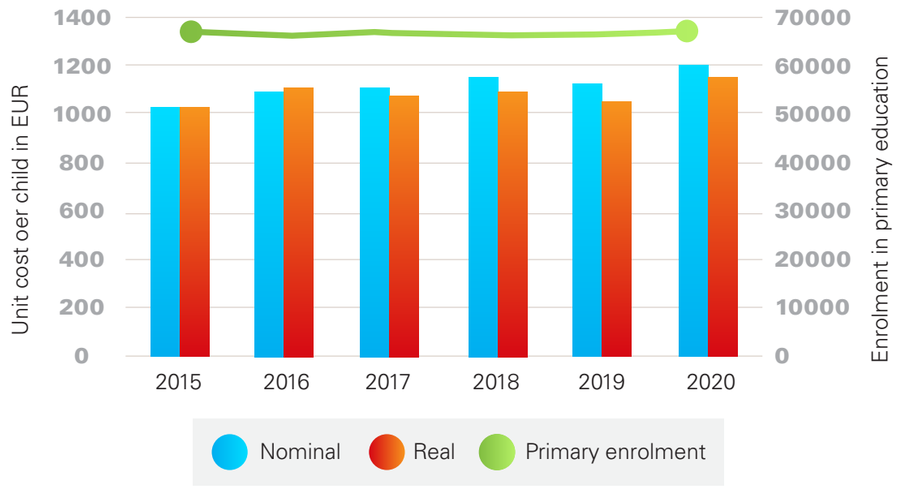
The average expenditure per child increased by about 28.7 percent from €942 in 2015 to €1,212 in 2020. As a side-effect of the drop in enrolment in 2020, there was relatively higher spending per child in 2020. In real terms, the unit cost per child increased by 22.7 percent from €942 to €1,165 per child during the period 2015–2020. It should be noted that these unit costs above do not include any capital expenditures. This is because the school infrastructure has a longer economic lifetime than the time a child is in school and is therefore methodologically not easily captured in a unit cost per child. Capital costs are further assessed in Section 5.1.5.

### 5.1.2.2 Primary education

**Spending on primary education has increased in both absolute and per-pupil terms.** About half of the MoESCS's education expenditure consistently goes towards primary education. It should be noted that the definition of primary education in Montenegro covers nine years of education and not six years, as in most other countries (in Montenegro primary and lower-secondary education are organized as a single-structure system). In relative terms, the share spent on primary education experienced a small increase from 49.9 percent in 2015 to 52.0 percent in 2020. In absolute figures, however, the expenditure on primary education rose from €69.6 million in 2015 to €82.5 million in 2020, a nominal growth of 19 percent or a real growth of 13 percent when corrected for inflation.

Since total enrolment in primary education has remained fairly consistent with around 68,000 pupils per year, the expenditure per pupil rose by 17.8 percent in nominal terms from €1,022 in 2015 to €1,204 in 2020. When corrected for inflation, the real growth per capita was an impressive 12.3

***Figure 5.9 Enrolment and per student spending on primary education, 2015–2020 in nominal and real terms***

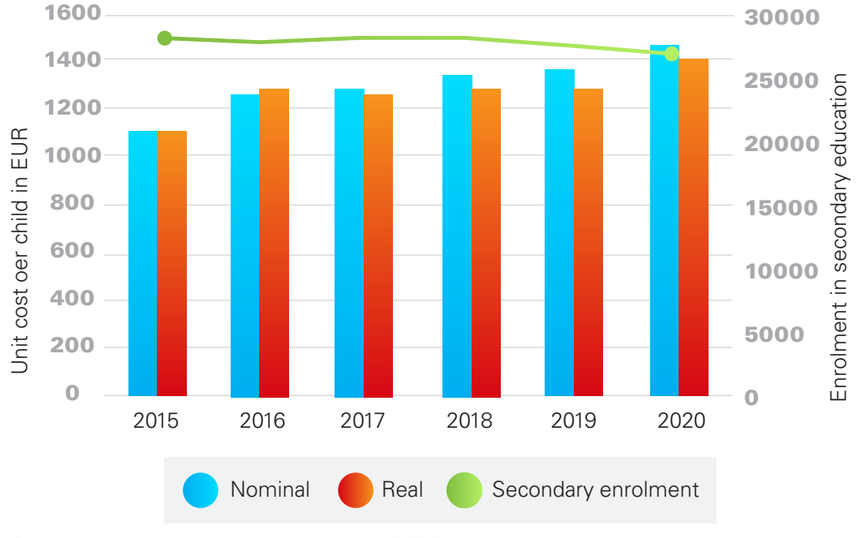



*Source: Own calculations based on Monstat and MoESCS expenditure reports*

### 5.1.2.3 Secondary education

**The share for secondary education (general and vocational) was 21.9 percent in 2015 and remained fairly stable around 23.5 percent in the years thereafter, going on to further increase to 25.0 percent in 2020.** In absolute terms, expenditures on secondary education grew substantially from €30.6 million in 2015 to €39.7 million in 2020. This is an increase of 30 percent, or 24 percent in real terms. As the number of students remained fairly constant, at around 28,000 per year with a small decrease in the last two years, the spending per student also increased from €1,089 to €1,480 in 2020 (+35.9%) or €1,411 in real terms (+29.6%).

***Figure 5.10 Enrolment and spending per student on secondary education, 2015–2020 in nominal and real terms***




*Source: Own calculations based on Monstat and MoESCS expenditure reports*





In summary, even in absolute terms, spending per child increased for ECE, primary and secondary education. It is however questionable to what degree these increases in spending also led to an increase in quality-related expenditures because, during the same period, the share of the MoESCS's budget spend on salary costs also increased (see Section 5.1.3).

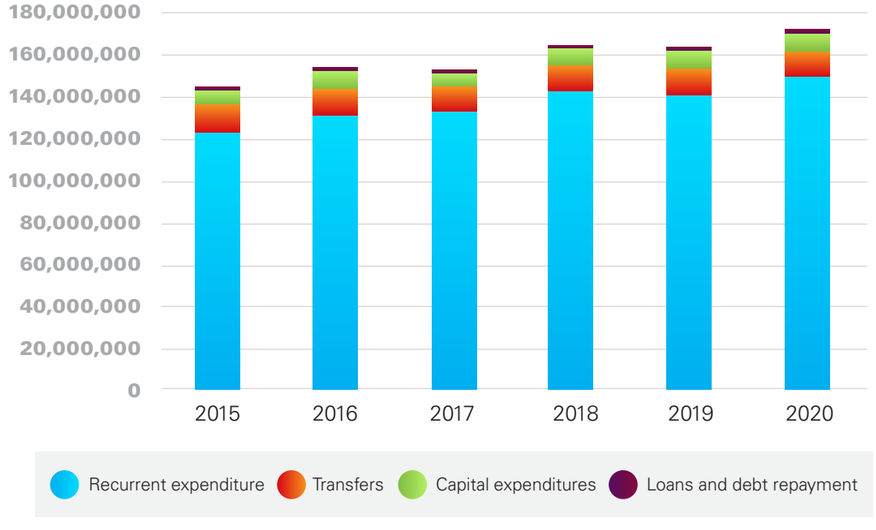
### 5.1.2.4 Vocational education

**There is no separate expenditure data on vocational secondary education.** As mentioned above, the expenditure on secondary education includes both general and vocational secondary education (TVET). Under the budget classification that was in use by the MoESCS until 2020, there was no further breakdown possible of the programme "secondary education" between general and vocational secondary education. Therefore, there are no exact figures available on how much was spend on TVET. According to the MoF, there will be a new budget classification system that will be (gradually) introduced starting with the 2021 budget. It is therefore expected that it will be possible to make this distinction in the future.

## 5.1.3 Spending by type of expenditure

**Around 90 percent of the MoESCS's spending on education goes towards recurrent spending.** The MoESCS's capital expenditure over the whole period has represented on average only €1.7 million or 1 percent of the MoESCS's total spending, mostly dedicated to minor investments and maintenance. Larger infrastructure works are reported in the capital budget, which falls under the responsibility of the Administration of Public Works. When including the capital costs for construction and rehabilitation of school infrastructure from the capital budget, the average share of capital spending increases to 4.7% of the total spending, as shown in Figure 5.11.

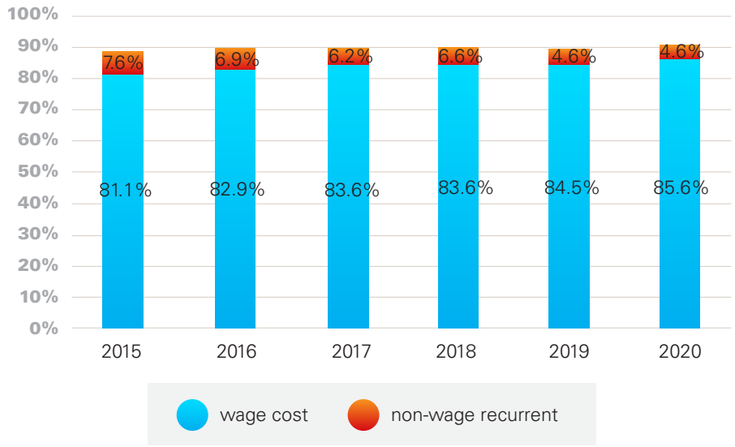
***Figure 5.11 MoESCS and AoPW spending on education per type of expenditure in €, nominal values, 2015–2020***




*Source: MoESCS expenditure reports 2015–2020*

**The share of education expenditures spent on wage costs continued to increase during 2015–2020.** The MoESCS's recurrent spending can be further broken down into a wage component (sum of remuneration paid to teaching and non-teaching staff, including the values of any social contributions) and a non-wage component (materials and services). Figure 5.12 shows that the wage-cost component further increased for each year and in 2020 was at a level of 85.6 percent of total public education spending while the fiscal space for the non-wage component decreased from 7.6 percent in 2015 to 4.6 percent in 2020. As a general rule of thumb, when spending on salaries exceeds 80 percent, it is an indication that wage costs and non-wage costs are out of balance. Across OECD countries, the wage costs of teachers and other staff employed in educational institutions averaged about 77 percent of total current expenditure within non-tertiary education.[173]

***Figure 5.12 Wage and non-wage recurrent cost component as a percentage of the MoESCS's education expenditure, 2015–2020.***




*Source: MoESCS Expenditure Reports 2015–2020*

**The increasing wage bill poses a risk for financial sustainability, if it is insufficiently compensated for with a higher budget allocation to the sector.** The increase in total wage costs is primarily the result of raising salary costs and less the result of an increase in staff. Overall, teaching staff on the pay-roll actually decreased between 2016 and 2020. The total number of employed teaching staff, professional co-workers and teaching assistants decreased by 1.0 percent from 8,067 in 2016 to 7,988 in 2020, even though teaching staff in ECE increased in this period by 24.3 percent (see Section 3.3).

**There is a general consensus among interviewees that an increase in remuneration is necessary to maintain qualified staff and it is also considered justifiable as wages are generally not seen as being in conformity with the market.** Yet, the increase in the wage component also shows the risk that salaries are crowding out the budget for school materials, if not sufficiently compensated for by an overall increase in the education budget. Generally speaking, the overall low allocation to the education sector in Montenegro is an important contributor to the increasing imbalance between wage and non-wage costs.

173 OECD, Education at a Glance 2021.





**It is therefore necessary to analyse in more detail the efficiency of the current wage bill in relation to access and good-quality service delivery including future needs.** As explained in Chapter 3, there are different supply and demand issues regarding teaching staff that need consideration, including the potential for some efficiency measures, such as dual-profiles for teachers in more remote areas and the need for additional teachers in some regions. This requires improved evidence-based HR planning for the medium to long term. This is also part of the process of collecting important knowledge-building data, considering Montenegro's macroeconomic policy to lower the public-sector wage bill as a percentage of GDP in order to strengthen debt sustainability.

### 5.1.4 Spending by commitment

**Budget credibility on education-related expenditures has been consistently high at an average of 99.3 percent over the period 2015–2020, meaning that the GoM has been able to execute the budget according to plan.** Budget credibility has been measured by the deviation between budget allocations which were approved at the start of the fiscal year and actual expenditure, which is the total amount spent at the end of the fiscal year.

**At the MoESCS, there are no systematic deviations in budget execution in the core programmes for ECE, primary and secondary education, which constitute 84 percent of their budget.** Programmes that show more volatility are those for the MoESCS's coordination function on higher education, pupil and student standards and administration, but these represent a relatively small proportion of the MoESCS's expenditure. The year 2020 is an exceptional year with a relatively much lower budget execution rate of 98 percent. This is mainly due to overall budget revisions and budget cuts that were necessary to respond to the pandemic (also see chapter 6). Nonetheless, in absolute terms, the MoESCS's spending on education in 2020 was still higher than in 2019.

**Some deviations are found in other institutions that have an education-related responsibility, in particular at the AoPW, responsible for education infrastructure.** Except for 2015 and 2020, there has been overspending on education infrastructure. In 2017 and 2018 this overspending was above 20 percent. A group of other institutions have consistently been underspending in the period 2015 to 2020. The MoESCS and the University of Montenegro show small deviations.

***Table 5.1 Over- and under-spending, overall and by institution, 2015–2020***

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|
| ***Overall*** | –0.8% | –1.1% | –0.7% | 0.5% | –0.4% | –1.8% |
| ***MoESCS**** | –0.1% | –0.9% | –0.6% | 0.2% | –0.4% | –2.0% |
| ***AoPW (infrastructure)*** | –18.4% | 2.5% | 22.1% | 21.2% | 8.9% | –0.1% |
| ***University of Montenegro*** | 0.0% | 0.0% | 0.0% | 0.0% | –2.5% | 0.0% |
| ***Other institutions with an educational task**** | –1.1% | –7.2% | –6.8% | –6.0% | –1.0% | –8.3% |

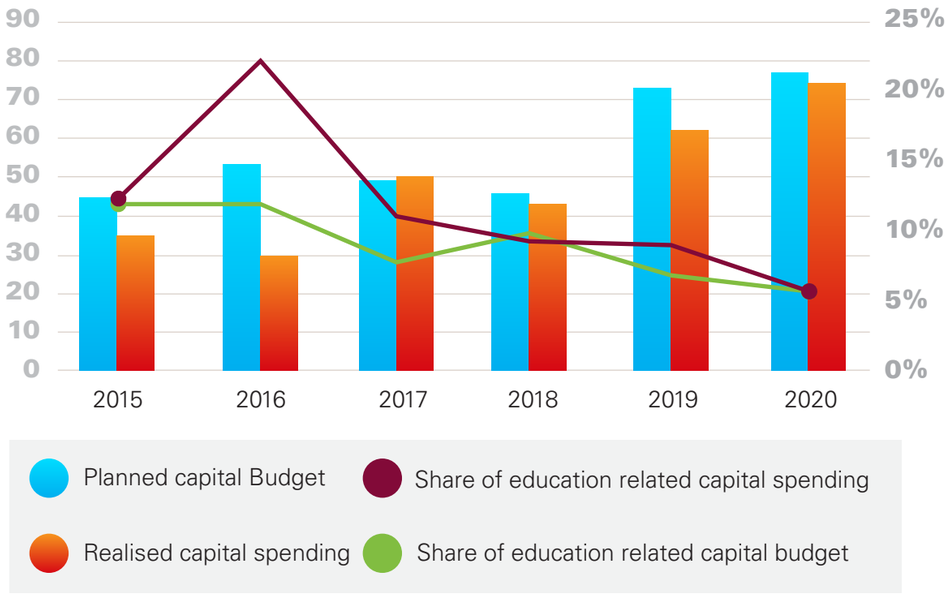
** For the years 2016, 2017, 2019 and 2020, there is a small discrepancy in overall spending reported by the MoF and MoESCS. The figures shown in this table are based on MoF reporting.*

*** These include the Institute of Education, the Examination , the Directorate for Youth and Sports, the Police Academy, the Faculty of Montenegrin Language and Literature, the Centre for Vocational Education and the Agency for Control and Quality Assurance of Higher Education*

### 5.1.5 School infrastructure

**While the total capital budget increased in nominal terms from EUR 45.2 million in 2015 to EUR 76.8 million in 2020, the share of the capital budget allocated to the education sector substantially reduced.** While it is not unusual for capital budgets to differ significantly from year to year, Figure 5.13 shows that there has been a consistent trend where the capital budget increased significantly with 70 percent in nominal terms (54 percent in real terms). However, the education sector hardly benefitted from this increase. The share spent on education decreased from 12.3 percent in 2015 to a share of 5.5 percent in 2020. This decreasing priority in the capital budget is in sharp contrast to the pressing school infrastructure situation affecting the majority of children in schools in ECE and at the primary and secondary levels. The low share is not explained by any unforeseen budget revisions due to the pandemic, because 99.9 percent of the education-related capital budget foreseen for 2020 was actually spent.

***Figure 5.13 Total planned and realized capital investments, and education share, 2015–2020***



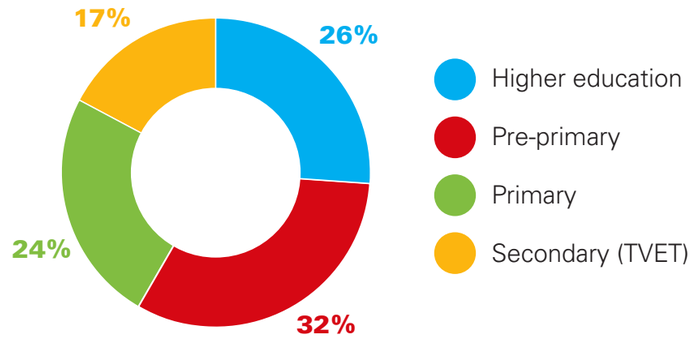

*Source: Own calculations based on Administration of Public Works Reports 2015–2020*

**In absolute values, the GoM has made a total investment of €30.4 million in school infrastructure in the last six years; on average this equals €5.1 million per year.** This is 2.6 percent more than was planned. The majority of the investments targeted ECE and higher education, but also primary and secondary education benefitted. For secondary education, the investments were almost exclusively targeted at vocational secondary education.





***Figure 5.14 Education-related capital investments by level of education, 2015–2020***




*Source: Own calculations based on Administration of Public Works Reports 2015–2020*

As shown in Chapter 2, demographic changes in Montenegro have put a great strain on schools in urban areas. Nonetheless, a self-assessment questionnaire among principals showed considerable perceived improvements between 2015 and 2018, as shown in Table 5.2. This table also shows that Montenegro does not necessarily perform substantially worse than its neighbouring countries in this survey. The analysis in Chapter 2 also pointed out that the most severe cases that operate far above the norm of 28 pupils per teacher are limited to about 13 percent of primary schools and 33 percent of secondary schools. Yet, these schools accommodate the majority of students.

***Table 5.2 Percentage of students in schools whose principal reported that the school's capacity to provide instruction is hindered to some extent or a lot by a lack of or low-quality infrastructure***

| | 2015 | | | | 2018 | | | | Change between 2015 and 2018 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | A lack of physical infrastructure (e.g building, grounds heating/cooling systems, lighting and acoustic systems) | | Inadequate or poor quality physical infrastructure (e.g. building, grounds heating/cooling systems, lighting and acoustic systems) | | A lack of physical infrastructure (e.g building, grounds heating/cooling systems, lighting and acoustic systems) | | Inadequate or poor quality physical infrastructure (e.g. building, grounds heating/cooling systems, lighting and acoustic systems) | | A lack of physical infrastructure (e.g building, grounds heating/cooling systems, lighting and acoustic systems) | | Inadequate or poor quality physical infrastructure (e.g. building, grounds heating/cooling systems, lighting and acoustic systems) | |
| | % | S.E. | % | S.E. | % | S.E. | % | S.E. | % | S.E. | % | S.E. |
| **OECD** | | | | | | | | | | | | |
| France | 32.5 | (3.2) | 28.9 | (3.4) | 29.3 | (3.1) | 27.6 | (3.2) | -3.2 | (4.5) | -1.3 | (4.7) |
| Germany | 39.2 | (3.6) | 39.8 | (3.7) | 36.9 | (3.7) | 41.5 | (3.7) | -2.4 | (5.1) | 1.7 | (5.2) |
| Portugal | 38.0 | (3.1) | 44.4 | (3.2) | 43.5 | (3.5) | 47.5 | (2.9) | 5.4 | (4.7) | 3.0 | (4.3) |
| Slovenia | 26.3 | (0.3) | 18.0 | (0.3) | 31.6 | (0.7) | 23.3 | (0.5) | **5.3** | (0.8) | **5.3** | (0.6) |
| Sweden | 21.7 | (3.0) | 27.8 | (3.7) | 20.2 | (2.8) | 21.3 | (3.2) | -1,4 | (4.1) | -6.4 | (4.9) |
| OECD average | 37.2 | (0.5) | 35.3 | (0.5) | 33.1 | (0.5) | 32.5 | (0.5) | **-4.1** | (0.7) | **-2.8** | (0.7) |
| **Partners** | | | | | | | | | | | | |
| Bosia and Herzegovina | m | m | m | m | 47.5 | (0.3) | 52.5 | (3.2) | m | m | m | m |
| Bulgaria | 28.0 | (3.6) | 22.7 | (3.0) | 30.8 | (3.4) | 21.2 | (2.9) | 2.8 | (5.0) | -1.5 | (4.2) |
| Croatia | 73.7 | (3.4) | 67.5 | (3.8) | 64.0 | (3.6) | 55.5 | (3.6) | -9.6 | (5.0) | **-12,0** | (5.3) |
| Kosovo | 50.8 | (1.2) | 50.2 | (1.3) | 50.4 | (1.8) | 48.5 | (1.8) | -0,4 | (2.1) | -1,7 | (2.2) |
| Lebanon | 41.5 | (3.5) | 36.8 | (3.2) | 35.5 | (2.7) | 30.9 | (2.6) | -0,6 | (4.4) | -5,8 | (4.1) |
| Moldova | 34.5 | (3.5) | 37.7 | (3.7) | 31.3 | (3.8) | 31.4 | (3.5) | -3,2 | (5.2) | -6,3 | (5.1) |
| Montenegro | 47.3 | (0.5) | 56.3 | (0.5) | 40.4 | (0.4) | 41.8 | (0.3) | **-6,9** | (0.6) | **-14,5** | (0.6) |
| North Macedonia | 25.6 | (0.2) | 20.8 | (0.1) | 36.6 | (0.1) | 34.2 | (0.1) | **11.0** | (0.2) | **13.4** | (0.2) |
| Serbia | m | m | m | m | 46.7 | (3.5) | 46.6 | (3.5) | m | m | m | m |

*Notes: Values that are statistically significant are indicated in bold*
*Source: PISA 2018 results, Volume V.*

**Priority setting for new infrastructure based on evidence and more innovative and low-cost solutions is needed to realize improvements for those highly congested schools in the short run.** The capital investment necessary to bring all these schools onto single shifts would be considered a challenge in Montenegro under the current economic outlook as described in Chapter 1, but data suggests that targeted investments in certain regions can make a huge impact.

### 5 .1.6 Higher education[174]

**The 2017 Law on Higher Education has had a considerable impact on the way higher education is financed and has resulted in better financial equity.** The University of Montenegro (UCG) is the only public higher education institution in the country. The UCG operates autonomously and receives direct funding from the treasury. In 2020/2021, total enrolment was 18,403. There is a gradually decreasing number of students. In 2015/2016, there were as many as 22,201 students.

Besides the UCG, there are a number of privately run higher education institutions, but these are typically much smaller in scale. The only larger private HE institution is the University of Donja Gorica, which had about 300 students in 2019/2020. Private higher education institutions fall outside the scope of the sector analysis.

As part of the 2017 Law on Higher Education, a new performance-based financial contracting model was prescribed to improve the quality of public funding for higher education. This was adopted by the UCG in December 2018. The goal of the new model was to improve quality, access and equity of higher education using the following measures:[175]

- Introduction of a performance contract between the UCG and GoM, monitoring the university's efficiency and effectiveness with detailed criteria, standards, and performance indicators in funding and obligations of both the GoM and UCG. The model stimulates connectivity between spending and the quality of education. The budget allocations with a detailed breakdown of the costs are assigned towards well-defined strategic plans than can be traced during the budget implementation (compared to the lump-sum funding based on historical data).
- A cap on student enrolment to improve the student–teacher ratio.
- Free studies, supporting the provision of equal opportunities for all students regardless of their financial background.

In 2018, the GoM increased the education budget by €2 million (+11%) from €17.4 to €19.4 million, to offset the loss of revenues mainly from fee-based tuition. A fee for students' poor performance has been introduced to avoid the unconditional long-term enrolment of poor performers in the past. This has become a new source of income. Yet, the new law may also pose a financial sustainability risk, because it will put additional pressure on public finances. There is also some debate over whether it will lead to improved or lower quality in the higher education system overall. Assessing the quality of higher education is however outside the scope of this study.

174 Although the analysis of the quality of higher education is not the subject of this assessment, we considered it useful to include the information on higher education funding

175 World Bank, Implementation and Completion Report of the Higher Education and Research for Innovation and Competitiveness Project, December 2019.





## 5.2 Sources of financing

The education sector is predominantly financed from the state budget. The other main sources of funding are parental contributions and out-of-pocket expenses. This includes payments to private educational institutions, mostly ECE and private higher education, but also household contributions related to primary and secondary education, for instance for buying textbooks for secondary education. Support from international partners is mainly provided in the project mode and therefore not reflected in the state budget. In the capital budget, there are two loans from the CEB and EIB for the realization of school infrastructure.

### 5.2.1 Household contribution to education

**There is incomplete data on household contributions to education. Data from the Household Budget Survey suggests that private expenditures are relatively low at 0.1 percent of GDP and highly concentrated at the tertiary level of education. This most certainly is an underestimated figure due to data limitations.** Household data suggests that, in 2017, households in Montenegro spent together €2.7 million on education. This is the equivalent of approximately 2.1 percent of their personal consumption and 1.8 percent of all education expenditure in 2017. Private spending on education, estimated in this manner, is roughly equivalent to 0.1 percent of Montenegro's GDP. Of all household expenditure on education, the majority of €2.4 million (90.7%) was spent on tertiary education, as shown in Table 5.3. The actual contribution will be much higher, considering, for instance, that there is a parental contribution of €40 per month for public ECE. While this contribution is much lower compared to the costs of private ECE, it is still high for families of lower socioeconomic status, particularly those that have more than one child of ECE age. Until recently, parents were also responsible for buying textbooks for children enrolled in primary education. There were plans to provide free textbooks from 2020 onwards, but due to budget limitations and reprioritizations in response to COVID-19, this plan has not yet been implemented.

***Table 5.3 Household contributions to education, 2017***

| Level of education | Amount in € | Share (%) | Enrolment (2017) | Average contribution per student in € |
|---|---|---|---|---|
| **ECE and primary education** | 23,597 | 0.9% | 87,795 | 0.27 |
| **Secondary education** | 1,545 | 0.1% | 28,097 | 0.05 |
| **Post-secondary non-tertiary education** | 55,271 | 2.0% | | |
| **Tertiary education** | 2,482,892 | 90.7% | 20,250 | 122.61 |
| **Education not definable by level** | 174,555 | 6.4% | | |
| ***Total*** | ***2,737,860*** | ***100.0%*** | | |

*Source: Monstat, Household Budget Survey 2017.*

The largest provider of tertiary education, the University of Montenegro, according to its Financial Report 2017, had a total expenditure of €29 million. This would imply a public–private cost sharing for higher education of roughly 8 percent.

**All in all, the data collection methods need revisions in order to provide better insights into private spending on education.** Other education-related costs, such as cost for transportation nutrition, are most likely also not included in the above figures. The Household Budget

Survey notably uses several categories for private consumption, including separate categories for food, transport and communication (including books).[176] It could well be that education-related costs are hidden in other categories.

### 5.2.2 Equity in spending

#### 5.2.2.1 Financial access

While primary and secondary education is, in theory, free-of-charge, related education costs, such as the ones for secondary education textbooks, materials and opportunity costs, may still create a financial barrier for parents that may hamper certain children's ability to access or complete education. By law, there are no tuition fees for primary and secondary education. This should guarantee free access to education up until the year of completing secondary education. Nonetheless, education is not completely free-of-charge because there are additional educational costs that parents have to pay out-of-pocket. The most explicit example is the requirement to purchase textbooks. From 2021, this is a requirement for secondary education only. Purchasing textbooks can be quite expensive and may continue to cause a financial barrier, especially for children from deprived families, as also discussed in Chapter 4.

Public ECE is not free-of-charge, but the fee rate is generally much lower than for private ECE. However, as explained in Chapter 2, there are capacity issues which impede universal access to public institutions. There is a relatively high share of private institutions which can partly compensate for this, but private ECEs usually have a different price policy than public ECEs. Especially in areas where there is insufficient or no public ECE capacity available, this causes an equity issue.

In June 2017, the new Law on Higher Education was adopted. The main change it introduced was free studies for undergraduate and master's students. Following this reform, the University of Montenegro started in 2017/2018 with free access for bachelor's studies. Master's studies are free-of-charge as of 2020/2021.

Even though education might be free-of-charge, parents may still experience high opportunity costs, which can cause another type of access barrier (see Chapter 4). There are some financial support measures in place, targeting preschool education of Roma children and children from families that receive a material allowance with support from the Ministry of Finance and Social Welfare. There is also a scheme to financially support students for material allowances and for transportation for those living 5 km or more away from their school. There are no specific support measures targeting students in secondary education. Annex 5 provides an overview of the available student support measures.

176 The Household Budget Survey makes a distinction between the following categories of expenditures: food and non-alcoholic beverages; alcoholic beverages and tobacco; footwear and clothing; dwelling, water, electricity; furniture, housing and maintenance; health; transport; communications; recreation and culture; education; restaurants and hotels and other goods and services.



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#### 5.2.2.2 Regional disparities

Based on the available data, it is not possible to determine the actual public spending per pupil in the different regions. It is therefore also not possible to say if each region receives a relative equal share of the budget (when corrected for the relative population share) and if there is a need to revisit the current allocation practices. There are, however, normative instructions for a school's budget preparations that the MoESCS uses as an allocation formula to take into account the number of students (including those with special needs) per school.[177]

Households in Podgorica collectively account for 45 percent of private spending across Montenegro; households in all urban areas account for 74 percent, where the other more rural areas account for 26 percent of all private expenditure. In terms of the distribution of the population, the share of rural population is about 33 percent of the total population (World Bank, 2019). This means that households in rural areas spend proportionally less on education than households in urban areas. This can be explained by the fact that higher education institutions are based in urban areas and that a relative higher proportion of students originate from urban areas.

#### 5.2.2.3 Children with special education needs

In 2015, the MoESCS had a separate budget line for children with special education needs (1.8 percent of the MoESCS's total spending). In the years 2016–2020, funding for SEN became an integral part of the budget which could no longer be traced separately. Therefore, it is not possible to analyse directly the expenditure specifically dedicated to SEN.

177 Normatives and standards for acquiring public revenue funds for institutions that implement public educational programmes, published in the "Official Gazette of Montenegro", 66 of 19 November 2010, 41/13.

## 5.3 Conclusions and recommendations

**Level of allocations and expenditures** – Based on the assessment of education financing, we can conclude that the GoM's expenditures on education have grown over the whole period 2015–2020, even when factoring in changing price levels. When adjusting for inflation, the rise in spending is about 9.1 percent for the period 2015–2019 – equal to real annual growth of 1.5 percent, on average.

However, the relative importance of education, measured as a share of GDP, decreased in the period 2015–2019 and this trend only shifted as a direct consequence of the shrinking of the economy in 2020 caused by COVID-19.

Montenegrin public expenditure on education is also relatively low by international standards. Even though Montenegro increased its relative share from 7.6 percent in 2015 to 8.2 percent in 2017, thereby lowering the gap with its peers, it is still at the lower end of the spectrum. This finding in itself could justify an increase in the education budget; however, any request for a substantial budget increase will be better-placed when complemented with a comprehensive evidence-based sector plan. Also any inefficiencies in the system would have to be identified and reduced. *The fact that the fiscal space in Montenegro is very limited (even more so after COVID-19) reinforces the need to confront any inefficiencies. Another way of increasing the fiscal space is to focus on reforms that will support a decline of the informal economy, which will obviously strengthen the GoM's tax base.*

**Type of expenditure** – Around 90 percent of the MoESCS's programme spending on education goes on recurrent spending. The share of education expenditure spent on wage costs continuously increased during 2015–2020. The increasing wage bill poses a risk for financial sustainability, especially when insufficiently compensated for with a higher budget allocation to the sector. *In order to assess the efficiency and effectiveness of the current wage bill in relation to access and good quality service delivery including future needs, there is a need for evidence-based HR planning.*

**Source of financing** – The education sector is predominantly financed from the state budget. The other main sources of funding are parental contributions and out-of-pocket expenses. The GoM has proved to be reliable in terms of funding the sector, while the budget credibility on education-related expenditures has been consistently high with an average of 99.3 percent over the period 2015–2020, meaning that the MoESCS has been able to execute the budget according to plan. There is insufficient reliable data to assess the level of household expenditures. While education is, in theory, free-of-charge, related educational costs, such as on secondary education textbooks, materials and opportunity costs, may still create a financial barrier for parents that may hamper the ability of certain children to access or complete education. There are some financial support measures in place targeting Roma students and students living in families that receive material allowances, with support from the Ministry of Finance and Social Welfare. The effectiveness of these measures has not been assessed. *Overall, there is a need for better data collection in order to have greater insight into private spending on education.*

**Efficiency and effectiveness** – In the broader perspective, the question of the efficiency and effectiveness of education spending is relevant. While the ESA is not meant as an impact evaluation, nor as a public expenditure review, some provisional conclusions can be drawn. Particularly when looking at the results shown in Chapter 2 on enrolment trends, the public education expenditures seem to have had a positive impact. For example, the effect of investments in ECE is clearly visible in higher enrolment figures. Overall, more children are going to school and more children are also completing their education. However, when looking at the conclusions of Chapter 3, there are serious concerns about the quality of education and teacher management, which reduces the effectiveness of spending. Questions of whether the current allocations on, for instance, teacher training have been sufficient and effective to contribute to better-quality education would require a separate, more in-depth evaluation.

A public expenditure review could help answer questions on how much is needed (adequacy), what can be afforded in the medium and long terms (sustainability) and whether public resources are being used efficiently, effectively and in an equitable manner, in relation to the government's policies and standards. *Given the overall resource constraints, it is of particular importance to identify any inefficiencies in the system. An HR assessment may be a good starting point to collect further evidence if there are currently any inefficiencies either in teacher training or in teacher placement, as well as being a good starting point for budget planning.*

# 6 The impact of COVID-19

Preparations for the ESA started around the same time as the first COVID-19 cases were reported in Europe and affected its methodology and timeline. The ESA team never met face-to-face, as planned field visits had to be cancelled due to the pandemic. Instead the team applied a flexible approach and held regular conference calls. Also, most interviews were held through video- or teleconferencing. Given the unforeseen magnitude of the crisis, the ESA deserves a final chapter on the impact of COVID-19 on Montenegro and, in particular, on its education system. While the duration and further development of the pandemic is hard to predict, the availability of (provisional) data over 2020 and the first half of 2021, as well as various studies and surveys, already provide some very important insights and underline the importance of the resilience of the education sector in times like these.

## 6.1 Health impact

**The first COVID-19 case was confirmed to have spread to Montenegro on 17 March 2020, making it the last European country to register a case**. On 24 May 2020, 68 days after the first case was recorded in Montenegro, there were no more cases until 14 June, when one new case was reported. On 16 March 2021, one year after the first reported case, there had been 83,690 cases and 1,122 reported deaths.[178] As the COVID-19 pandemic began spreading in Europe in March 2020, the Government of Montenegro took swift and decisive measures to contain the virus, including closing its borders, airports, seaports, schools and non-essential businesses. Public gatherings were also banned.

Besides the direct health impact, the crisis and related measures caused all sorts of negative health-related side-effects, such as stress and mental health issues. In Section 1. 4.1, the socioeconomic impact of COVID-19, in particularly for those already in a vulnerable position, is mentioned. All countries, including Montenegro, have continuously taken measures to reduce the impact of the current circumstances on their economic system; subsidies for employee earnings was one of the most frequent measures, both in the Western Balkans and in other European countries.[179] Nonetheless, the impact is unprecedented.

## 6.2 Impact on the education system

During 2020 about 1.6 billion children – over 90 percent of students globally – were out-of-school[180] and experienced emergency distance education and various hybrid and blended education models. This created an unprecedented change in the ecology of schooling, leaving children isolated from their peers and their entrenched social milieu, rupturing the routines of both teachers and children, and transforming support systems.

178 WHO, COVID-19 dashboard, 16 March 2021.

179 UNDP, Assessment of the impact of COVID-19 on the business sector and the growth prospects of the Montenegrin economy, June 2020.

180 https://en.unesco.org/news/covid-19-learning-disruption-recovery-snapshot-unescos-work-education-2020; Reimers, F. M., & Schleicher, A. (2020). *Schooling disrupted, schooling rethought: How the Covid-19 pandemic is changing education*. OECD. https://read.oecd-ilibrary.org/view/?ref=133_133390-1rtuknc0hi&title=Schooling-disrupted-schooling-rethought-How-the-Covid-19-pandemic-is-changing-education.

### 6.2.1 Impact of the COVID-19 crisis on the quality of education

**Disruption of schooling due to the pandemic exacerbated worldwide already known education policy fractures, and put the quality, equity and effectiveness of education at risk.**[181] The pandemic also spurred a wide array of adverse consequences not directly subsumed under the emergency distance learning, but which had a substantial indirect impact on it,[182] such as: teacher stress and burnout, parental engagement in a teaching role, challenges of measuring learning that can give rise to integrity problems, etc.

Moving from contact instruction to distance education is not simply "moving" learning from one place to another. Distance education, in order to produce quality education, requires not only technical readiness in terms of equipment and skills to use them, but also curriculum readiness (i.e. appropriate digital content prepared for teachers, ready to use), pedagogical readiness (i.e. mastering a wide range of digital interactive pedagogical tools) and assessment readiness (using assessment formats that maximize students' initiative and exploration of digitally available knowledge).[183] Where these four types of readiness are not fully observed, distance education easily runs the risk of becoming monotonous and boring – and of putting undue burden on students, requiring higher motivation and self-regulation. Indeed, research shows that student motivation and student self-regulation have become critical aspects of distance education worldwide.[184]

Appraisals of the possible worldwide impact of Covid-related school lockdowns are predicting learning losses of various sizes depending on various factors.

The length of school closures and preparedness of the education system to leap into digital education are major determinants of learning losses as a consequence of school lockdowns and emergency remote teaching. The loss is expected to correspond to 0.3–0.9 years of a usual year's schooling gain, or a high percent of the yearly learning gain (63–68 percent in reading and 37–50 percent in mathematics), or even 1.5 years worth of learning if taken cumulatively.[185] The reduced learning time during a school day can be another loss factor.[186]

Actual research evidence is still scarce, and originates from more developed countries, where national tests result comparisons from 2020 with previous years' results indeed show a learning loss as a decrease in test scores by a fraction of a standard deviation, mostly in primary education (0.19–0.29 SD in Belgium, 0.08 SD in the Netherlands), losses in reading age (for example, being 22 months behind in the UK) or overall performance losses (for example, 11 percent in Kazakhstan).

181 Schleicher, 2020.

182 https://en.unesco.org/covid19/educationresponse/consequences.

183 Ibid.

184 For a good overview on motivation and self-regulation, see Pelikan, E.R., Lüftenegger, M., Holzer, J., Korlat, S., Spiel, C., & Schober, B. Learning during COVID-19: The role of self-regulated learning, motivation, and procrastination for perceived competence. *Zeitschrift für Erziehungswissenschaft*, Advance online publication. https://doi.org/10.1007/s11618-021-01002-x.

185 See the overview of prediction methodologies in Maldonado, J., & De Witte, K. (2020). The effect of school closures on standardised student test. *FEB Research Report Department of Economics*.

186 Garcia, E. & Weiss, E. (2020). *COVID-19 and student performance, equity, and U.S. education policy: Lessons from pre-pandemic research to inform relief, recovery, and rebuilding*. Economic Policy Institute.



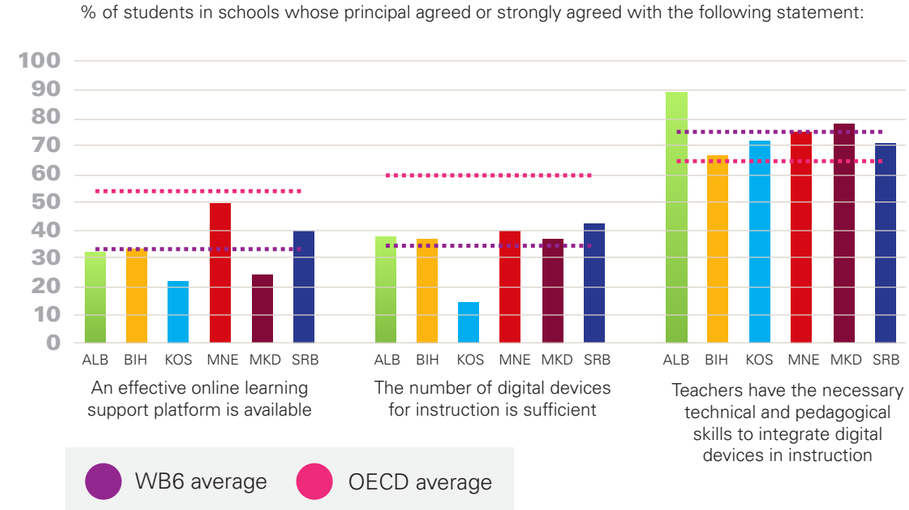


As a response to the threat of learning loss, countries are preparing education investment plans[187] targeting initiatives to accelerate learning, such as through: summer schools, expanded learning time, or tutoring programmes; community schools; and initiatives to stabilize and diversify the educator workforce.[188]

On a conceptual level, thinking about the school closure crisis and chaos as an opportunity to reimagine the future of education and use it as a possible catalyst for educational change (OECD, 2020; Reimers, & Schleicher, 2020; Zhao, 2020; Azorín, 2020, UNICEF, 2020) is a further constructive step in looking at the effects of the COVID-19 crisis in education.[189]

Empirical research on the impact of the COVID-19 crisis on learning performance in the Western Balkans is not yet available; therefore it is imperative to use the current academic year to conduct standardized learning assessments in order to assess the impact and design appropriate remedial measures. However, predictions for the Western Balkan countries based on PISA 2018 data (Figure 6.1) on the possibility of home-based instruction are pointing towards the prospect of more pronounced learning losses than are found in highly developed countries.

***Figure 6.1 PISA 2018 data on the possibility of home-based learning for the Western Balkan countries[190]***




*Source: (OECD, 2019 (15) ). PISA 2018 database, www.oecd.org/pisa/data/2018database/*

187 Such as the American Rescue Plan Act of 2021 (ARPA).

188 Griffith, M. (2021). An Unparalleled Investment in U.S. Public Education: Analysis of the American Rescue Plan Act of 2021. Learning Policy Institute. https://learningpolicyinstitute.org/blog/covid-analysis-american-rescue-plan-act-2021.

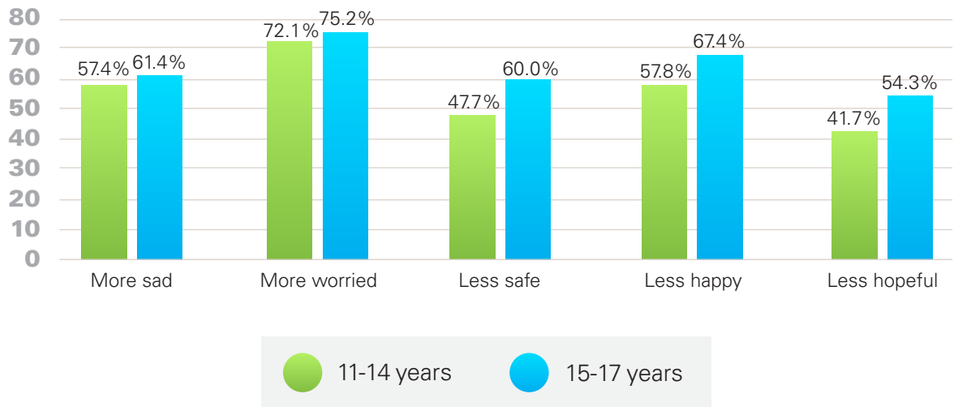
189 OECD (2020). Strengthening online learning when schools are closed: The role of families and teachers in supporting students during the COVID-19 crisis. Retrieved 13 October 2020, from http://www.oecd.org/coronavirus/policy-responses/strengthening-online-learning-when-schools-are-closed-the-role-of-families-and-teachers-in-supporting-students-during-the-covid-19-crisis-c4ecba6c;
Reimers, F. M., & Schleicher, A. (2020). Schooling disrupted, schooling rethought: How the Covid-19 pandemic is changing education. OECD;
Zhao, Y. (2020). COVID-19 as a Catalyst for Educational Change. Prospects, 1–5. https://doi.org/10.1007/s11125-020-09477-y;
Azorín, C. (2020). Beyond COVID-19 supernova. Is another education coming?. Journal of Professional Capital and Community. https://doi.org/10.1108/JPCC-05-2020-0019;
UNICEF (2020). Izgradnja obrazovnih sistema koji će biti spremni da odgovore na krizu tokom i nakon pandemije COVID-19. UNICEF Regional office for Europe and Central Asia.

190 OECD. (2021). The COVID-19 crisis in the Western Balkans Economic impact, policy solutions and short-term sustainable solutions. https://www.oecd.org/south-east-europe/COVID-19-Crisis-Response-Western-Balkans.pdf.

It is expected that the PISA score may drop by 16 points and the percentage of students below basic proficiency in reading may increase from the current 53 percent to 61 percent, creating a major knock-on effect on human resource development.[191] This estimate is based on the fact that: (a) the accessibility of high-speed internet, essential for online instruction, is generally low in the Western Balkans; (b) availability of home computers will be limited in the scenario of competing demands to use the home computer in support of the schooling of siblings and the parents' home office; (c) availability and quality of digital content is questionable; (d) digital competencies of teachers are lacking; (e) parents are not prepared to cope with distance learning and home schooling, and might not even have the time to support their children; (f) the already short instruction time in the Western Balkan countries will additionally shrink during distance education; and (g) protracted school closures are likely to push up school drop-out rates.

The concern about learning loss needs to be supplemented with wellbeing concerns. Research into student wellbeing during the COVID-19 lockdowns detected diverse concerns among children, such as fears of getting sick, depression and loneliness.[192] A large-scale study by Save the Children found an increase in negative feelings by children, mostly in adolescence,[193] as shown in Figure 6.2.

***Figure 6.2 Negative feelings of children due to the COVID-19 lockdown***




*Source: Save the Children: The hidden impact of COVID-19 on child protection and wellbeing, Fig. 11.*

The increase in negative feelings was found to be connected to school closures, with 83.9 percent of children whose schools were fully closed reporting this, compared to 73.9 percent in cases where the schools were remotely open, and 55.5 percent when the schools were open and classes given in person. Playing with friends was found to be an even more important factor decreasing the rate of negative feelings: only 16–18 percent of children who were able

191 World Bank Group: *The Economic and Social Impact of COVID-19. Education.* Western Balkans regular economic report No.17. Spring 2020 http://documents.worldbank.org/curated/en/932621590693246041/The-Economic-and-Social-Impact-of- COVID-19-Education.

192 Kirsch, C., Engel de Abreu, P. M. J., Neumann, S., Wealer, C, Brazas, K., & Hauffels, I. (2020). *Subjective well-being and stay-at-home-experiences of children aged 6–16 during the first wave of the COVID-19 pandemic in Luxembourg: A report of the project COVID-Kids.* University of Luxembourg.

193 Save the Children: *The hidden impact of Covid-19 on child protection and wellbeing.* https://resourcecentre.savethechildren.net/node/18174/pdf/the_hidden_impact_of_covid-19_on_child_protection_and_wellbeing.pdf.





to meet their friends at the usual level reported increased negative feelings.[194] Montenegro was not included in the study, hence specific information on children's wellbeing is not available. However, parents in Montenegro reported similar changes in their child's psychosocial functioning.[195]

## 6.2.2 Emergency distance education during COVID-19 in Montenegro

### 6.2.2.1 Organization of schooling during the COVID-19 crisis in 2020 and 2021 in Montenegro

During the COVID-19 crisis the organization of schooling changed several times in Montenegro, reflecting the fluctuation in the severity of the pandemic and the experiences gained in managing the situation.

Montenegro opted for a total lockdown of schools in the spring of 2020, which lasted until the end of the school year. The 2020/21 school year started with a delay of one month and schools were only partially open – for students of grades 1–6 of primary and the first grade of secondary education, while grades 7–9 of primary and 2–4 of secondary education moved online**.** From the second semester of 2020/21, a decentralized hybrid model was approved, where schools could choose their model, based on the capacity of the facility to organize contact instruction for all students in small groups or interchangeably combined with distance education; however, contact instruction was obligatory for grades 1–3 of primary school and advised for the ninth grade as well.[196] In some schools, working in small groups created problems with shifts – parents reported during the interviews that some schools worked in four shifts. As the pandemic eased, from early May 2021 all schools reopened for regular instruction, and 2021/22 started on time, on 1 September, with regular instruction, albeit with a possible shortening of class periods to 30 minutes and enforcement of epidemiological safety measures. Online instruction was reserved only for children with disabilities and learning difficulties in case they could not attend school.[197]

During school closures, as in many countries worldwide,[198] TV-mediated instruction was introduced, more than 8,000 pre-recorded lessons by selected teachers were broadcast on two TV channels and on YouTube, and were uploaded to the portal "Uči doma" (Learn at Home) and to school websites, especially in the case of vocational modules and practical classes. Preparing, recording and uploading the lectures for primary education, general secondary education and in vocational secondary education was a huge endeavour for the country, overwhelming several departments in the ministry (e.g. the MEIS), the Bureau of Education and teachers. TV instruction was complemented by distance education organized by teachers, first using any ICT means possible. Later, the MoESCE recommended Microsoft Office 365 tools for conducting distance education and by spring 2021, over 4,500 teachers were trained to use Microsoft Teams. However, there are still schools and teachers who are using other tools.

194 Ibid.

195 https://www.unicef.org/montenegro/media/15891/file/mne-media-1001.publication.pdf.

196 https://eacea.ec.europa.eu/national-policies/eurydice/content/national-reforms-school-education-45_me.

197 https://www.gov.me/clanak/radna-grupa-donijela-konkretne-zakljucke-o-nacinu-realizacije-nastave-od-1-septembra.

198 All but one country in Eastern Europe and Central Asia, and around 60 percent of countries in Western Europe, relied on TV lessons in remote schooling, most often with additional different digital platforms. https://en.unesco.org/covid19/educationresponse/nationalresponses.

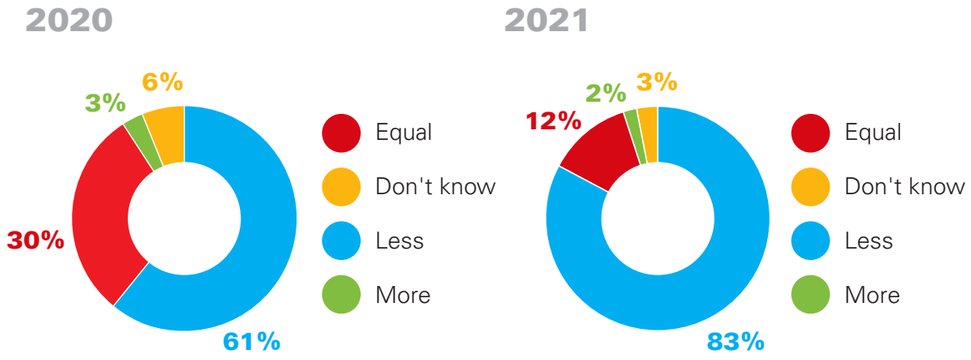
At the preschool level, parents could use the prepared material for working with children, which was published on the website http://www.skolskiportal.edu.me, as well as on the #PlayAtHome portal, featuring short videos aimed at inspiring parents to work with their children. Preschool teachers educated parents on how to create didactic materials and how to encourage the development of their children. Also, a collection of best practices and structured activities to be delivered during the summer months was also developed, covering topics such as: the city, village, mountain and sea, as well as work material in the context of COVID-19.

Here, it is worth mentioning that Montenegro does not have an online learning platform, and the teachers who are using ICT tools prepare their own materials, instead of being supported by a wide selection of pedagogically designed digital materials, including grading assignments, student projects, and cooperative group tasks.

### 6.2.2.2 General assessment of the situation in education during the COVID-19 crisis

Given that the education system was not prepared for emergency distance education and that the wide use of digital media is still in its early stages, the transition to this new form of service provision in the field of education was, as expected, associated with constraints. The overall assessment of the quality of emergency distance education during the school lockdown in Montenegro by parents is negative,[199] and in the course of the pandemic, after a year of experience, it became even worse.[200] Figure 6.3 shows that, according to the assessment of more than 60 percent of respondents in 2020 and 83 percent in 2021, less knowledge and skills were obtained than in regular contact instruction.

***Figure 6.3 Parents' responses about the amount of knowledge and skills obtained during distance education compared to regular schooling in spring 2020 and 2021***




*Source: Report on the Rapid Social Impact Assessment of the COVID-19 outbreak in Montenegro April–June 2020, and Report on the Rapid Social Impact Assessment of the COVID-19 outbreak in Montenegro, 2021*

199 United Nations Montenegro. *Report on the Rapid Social Impact Assessment of the COVID-19 outbreak in Montenegro April–June 2020.*

200 United Nations Montenegro. *Report on the Rapid Social Impact Assessment of the COVID-19 outbreak in Montenegro, 2021.*

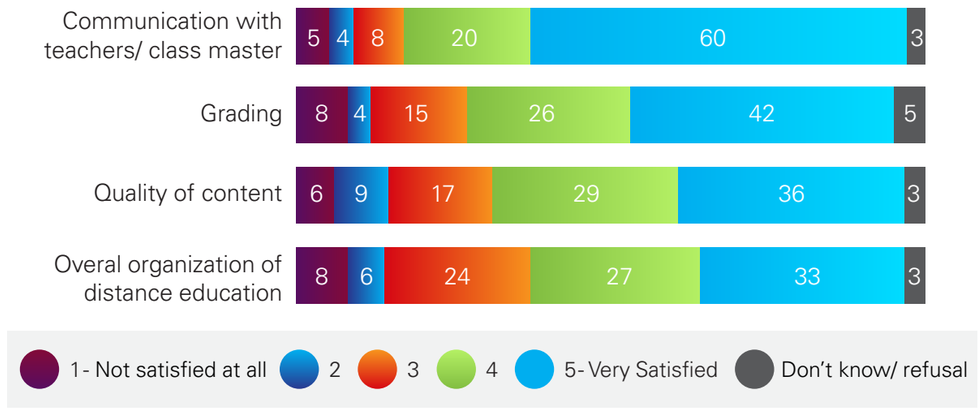




Students' reports confirm this assessment: 60 percent of adolescents felt that they had learned less via distance learning than they would have in regular classes,[201] and a year later they were more critical about all modalities of distance education, and more pessimistic about the effects of distance learning than they were at the beginning of the pandemic.[202]

In 2020, parents were mostly satisfied only with the communication with schools (80 percent of respondents), while the other aspects of schooling, such as: grading, quality of content and overall organization, were assessed less positively, as depicted in Figure 6.4a.

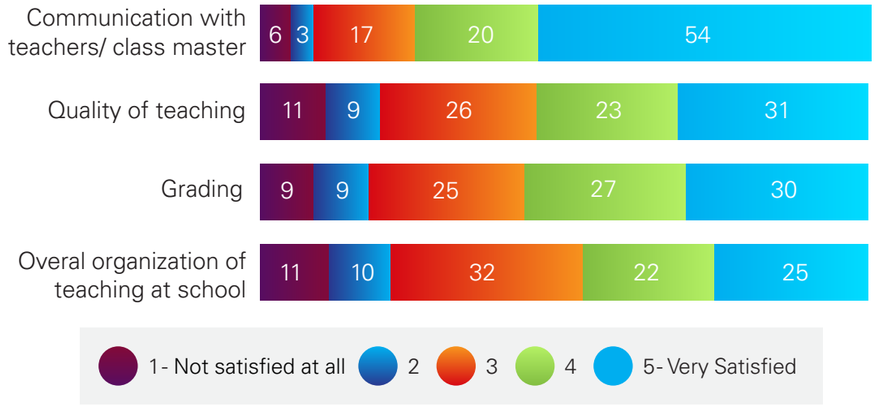
***Figure 6.4a Satisfaction of parents with different aspects of distance education in Montenegro, 2020***




*Source: Report on the Rapid Social Impact Assessment of the COVID-19 outbreak in Montenegro April–June 2020*

Parents' assessments became somewhat more critical in 2021, both for school-based education arrangements during the pandemic and for distance education.

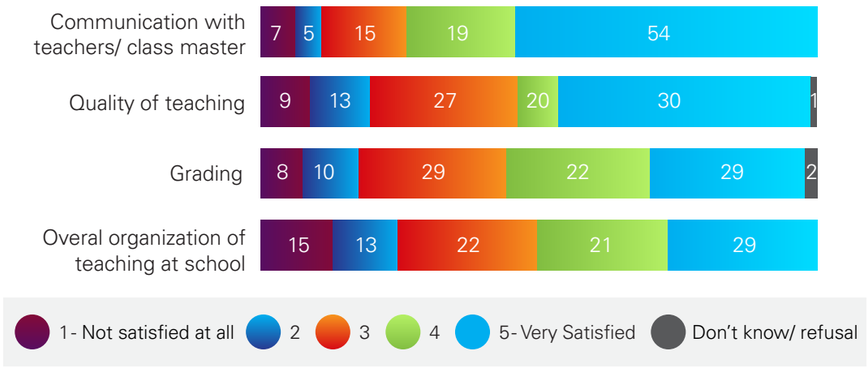
***Figure 6.4b Satisfaction of parents with different aspects of distance education in Montenegro, 2021, school-based education in changed circumstances***




201 United Nations Montenegro. *Report on the Rapid Social Impact Assessment of the COVID-19 outbreak in Montenegro April–June 2020.*

202 United Nations Montenegro. *Report on the Rapid Social Impact Assessment of the COVID-19 outbreak in Montenegro, 2021.*

***Figure 6.4c Satisfaction of parents with different aspects of distance education in Montenegro, 2021, distance education***




*Source: Report on the Rapid Social Impact Assessment of the COVID-19 outbreak in Montenegro, 2021*

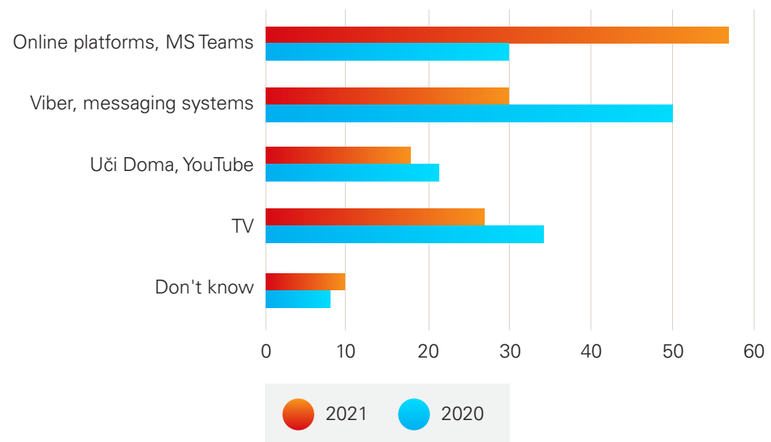
The deterioration of the overall assessments of instruction in the course of the COVID-19 crisis by both parents and students reflects a growing dissatisfaction with the education offer, and disappointment that an effective solution (possibly relying on well-designed, pedagogically challenging and motivationally attractive education platforms) was not developed after a year.

### 6.2.2.3 Constraints in equipment and learning platforms

While ICT equipment for distance learning was lacking in around 20 percent of households, the diversity of learning platforms in spring 2020 created an additional problem for parents and students, which aggravated the problems in adapting to the new tools.

Different communication apps were used beside TV and Uči Doma on YouTube: in 2020 Viber was prevalent (50 percent of parents assessed it as the most effective tool for distance education, while only in about 30 percent of cases was an online platform mentioned). The situation changed with introduction of Microsoft Teams, which became the preferred learning tool. (Figure 6.5).

***Figure 6.5 The most effectively used tool in distance education in Montenegro in 2020 and in 2021 (parent response, %)***




*Source: Report on the Rapid Social Impact Assessment of the COVID-19 outbreak in Montenegro April–June 2020, and Report on the Rapid Social Impact Assessment of the COVID-19 outbreak in Montenegro, 2021*





### 6.2.2.4 Skill constraints

Teachers' skills in using ICT for distance education at the beginning of the school closures was low in Montenegro. In the course of the subsequent months, about 4,300 teachers, covering all schools in Montenegro, had a two-day instruction course in how to use Microsoft Teams for digital education, organized by the MEIS.[203] The schools moved all school staff meetings online as well, which helped them to get acquainted with digital tools, but the skills gap compared to EU-27 is still wide.[204]

### 6.2.2.5 Curriculum and pedagogy constraints

TV instruction, although serving well the purpose of rapid response and ensuring some continuity of education, also had less positive effects. The outcome- and competency-oriented curriculum was reduced to the most important outcomes, and the school-level planning was also revised in order to fit with the TV instruction. Therefore all schools had the same timetable during school closure, and school and teacher autonomy regarding curricular decisions was seriously hampered. On the other hand, digital content was not prepared and offered to the teachers, not even in terms of good examples that could orient their own preparations; hence, teachers were left to find their own way around the new challenge individually. Although Microsoft Teams was overwhelmingly used during 2020/21 and some schools even fully moved to online learning, about half of the teachers did not use the interactive functions of the tool, and limited their classes to providing only materials and tasks for the children.[205] These materials were assessed as overwhelming, especially in the lower grades[206] and especially since they required being printed out by the parents. Additionally, there is no evidence that, even when interactive classes were happening, these were digitally more advanced, with the use of break-out groups, Jamboard, Forms, videos, etc. for creating a motivating and activating learning experience. They most often involved showing a PowerPoint presentation and lecturing.[207]

As a consequence of the lacking digital curriculum and pedagogy, reports about student experiences in Montenegro show a decline in student motivation – more than 70 percent of parents report about their child losing motivation and work habits during distance education.[208] Parents also complain about needing more support from the schools, especially in subjects that parents are not skilled in.[209] Adolescents also report that 50 percent of them do not follow the instruction on TV any more, as they deem it not interesting. Instead, they are engaging online.[210]

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203 Information obtained from the MEIS.

204 World Bank Group: *The Economic and Social Impact of COVID-19. Education.* Western Balkans regular economic report No.17. Spring 2020. http://documents.worldbank.org/curated/en/932621590693246041/The-Economic-and-Social-Impact-of-COVID-19-Education.

205 Ibid

206 Study of parents' and key informants' attitudes towards distance learning and school reopening. https://www.unicef.org/montenegro/media/15891/file/mne-media-1001.publication.pdf.

207 Information obtained from MEIS.

208 Study of parents' and key informants' attitudes towards distance learning and school reopening https://www.unicef.org/montenegro/media/15891/file/mne-media-1001.publication.pdf.

209 Ibid.

210 Ibid.

In the research about student attitudes regarding schooling in 2020/21,[211] secondary school students also aired dissatisfaction – 36 percent of the almost 4,000 respondents were dissatisfied and 37 percent were partially dissatisfied with the online schooling organized in the autumn semester. Around 50 percent of students claimed that the curriculum was too demanding, and also around 50 percent missed live interaction and communication with their teachers. During the spring semester, with greater school autonomy for organizing schooling, the students' assessment tilted, and 57 percent stated that they were satisfied and would not suggest any changes.

#### 6.2.2.6 Monitoring and assessment constraints

Grading during distance education was a source of challenge for some parents, key informants and also students. The modality of students' assessment was not adjusted to the digital environment of schooling; it remained rather traditional – only the criteria were lowered. In general, parents were not very dissatisfied (see Figure 6.4). Parents noticed that the lack of monitoring and lowered grading standards was affecting children negatively, while key informants addressed the need to change assessment from a predominantly summative assessment to formative assessment.[212] Adolescents report that they were completely overburdened by homework – 70 percent of them aired a complaint in this respect.[213] Secondary school students were also very concerned about what the school-leaving examination would look like at the end of the school year, considering that their education was disrupted and hampered.[214]

System-level monitoring of learning outcomes for assessing the impact of the altered schooling conditions due to the COVID-19 pandemic had not yet been conducted, and the school-leaving examinations administered in 2020 and 2021 were also not used for this purpose.[215] It is recommended to conduct such assessments in the near future and appraise the scope and type of impact of the unusual way of schooling and learning on the students' learning outcomes.

#### 6.2.2.7 Students' wellbeing

Parents in Montenegro reported similar changes in their child's psycho-social functioning to those listed by international studies.[216] More than 70 percent of students felt overburdened, and stressed the importance of mental health during the COVID-19 crisis, also acknowledging that there is not enough psychological and psycho-social help available for them.[217] Adolescents miss socializing with their peers the most (85.7 percent of them), and they air concerns about job prospects and their further schooling, as shown in Table 6.1.[218] In 2021 their concerns remained similar.

211 Unija srednjoškolaca Crne Gore: Istraživanje o stavovima srednjoškolaca/ki o nastavi u prvom i drugom polugodištu, kao i maturskim ispitima.

212 Study of parents' and key informants' attitudes towards distance learning and school reopening https://www.unicef.org/montenegro/media/15891/file/mne-media-1001.publication.pdf.

213 Ibid.

214 Unija srednjoškolaca Crne Gore: Istraživanje o stavovima srednjoškolaca/ki o nastavi u prvom i drugom polugodištu, kao i maturskim ispitima.

215 Information from the Examination Centre of Montenegro.

216 https://www.unicef.org/montenegro/media/15891/file/mne-media-1001.publication.pdf.

217 United Nations Montenegro: Report on the Rapid Social Impact Assessment of the COVID-19 outbreak in Montenegro April 2020.

218 Ibid.





***Table 6.1 What do adolescents miss during school lockdown?***

| ACTIVITY | I DO NOT MISS IT ALL | I MISS IT A BIT | I MISS IT A LOT |
|---|---|---|---|
| Live lesson in the classroom | 13.47% (68) | 34.65% (175) | **51.88% (262)** |
| Direct contact with the teacher | 20.2% (102) | 37.03% (187) | **42.77% (216)** |
| Socializing in the school | 5.15% (26) | 9.11% (46) | **85.74% (433)** |
| Grading in class | 32.28 (163) | **34.85% (176)** | 32.87% (166) |

*Source: Report on the Rapid Social Impact Assessment of the COVID-19 outbreak in Montenegro April 2020*

## 6.3 Impact of the COVID-19 crisis on the equity of education

The school closures as a response to the COVID-19 outbreak disproportionally affected children from vulnerable groups worldwide. In Montenegro, children from the Roma community, children affected by poverty and children with special education needs are at particular risk. Transforming to online education affected children from vulnerable groups in Montenegro in multiple ways, further increasing their risk of exclusion. Additionally, the pandemic has hit the Roma and Egyptian communities even harder, pushing them from poverty towards extreme poverty.[219]

Unequal access to technological infrastructure is the first and most visible adverse factor affecting children from vulnerable groups, especially Roma and Egyptian and children with a background of poverty. In Montenegro 21 percent of households with school-age children do not have a computer with an internet connection, and 51 percent do not have a tablet with an internet connection, and about 1 percent do not have a TV.[220] In the Roma and Egyptian community, only 54.2 percent of households have access to the internet and only 15 percent have a computer at home.[221] These percentages point to a serious digital gap between the mainstream population and those living in poverty, including Roma, who did not have the chance of intensive use of ICT outside of school for schoolwork and, thus, to gain digital competencies and the habit of relying on ICT to solve problems.[222] Thus, many Roma and Egyptian children could not participate in the online education that was introduced.

The schools organized alternative instruction solutions for children without ICT equipment, preparing hard copies of learning materials that were distributed to families. Donations of tablets from the MoESCS and from other donors to the most vulnerable groups were registered,[223] in order to use them for distance learning.

Parental support for learning via distance education modalities is weaker in poverty-struck families. Parents' education level is a strong factor in the capacity of parents to support the distance education of their children, to assume the role of a knowledgeable teacher and, in addition, to be skilled in the technologies used for learning. Given the low education level of adults in the Roma community, education support for children engaging in distance education was lower than in mainstream families.

219 United Nations Montenegro: Report on the Rapid Social Impact Assessment of the COVID-19 outbreak in Montenegro, 2021.

220 Report on the Rapid Social Impact Assessment of the COVID-19 outbreak in Montenegro April–June 2020.

221 Ibid.

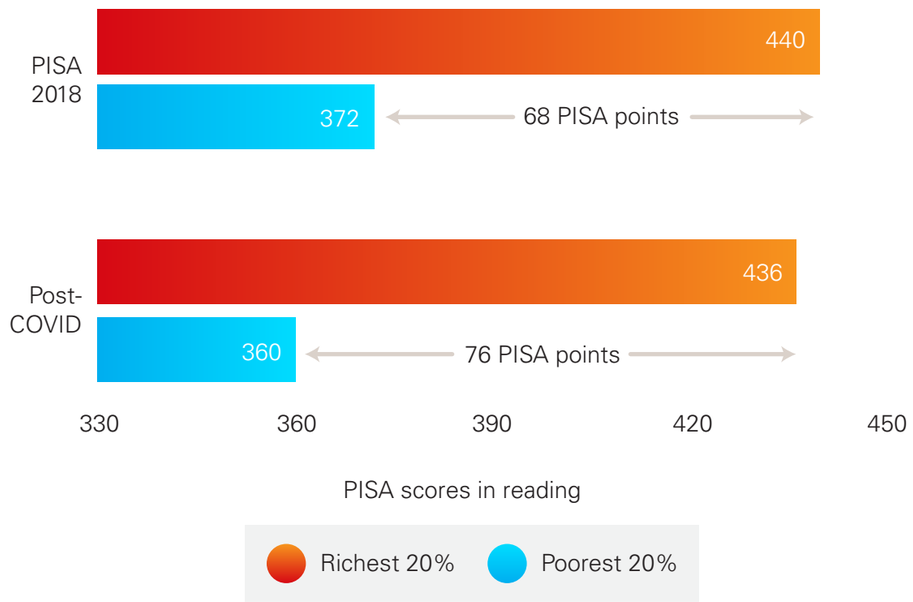
222 OECD (2020). Strengthening online learning when schools are closed.

223 The ESA team was not able to get data on the exact number of the tablets donated.

Most families from the lowest SES quintile additionally faced a heightened risk of losing their modest income, as markets and other service commodities closed during lockdown. This exacerbated uncertainties that could impact both parents' time, patience and energy needed for supporting children and, in turn, burdened children with more household chores. Additionally, such a stressful situation can trigger occasional home violence, which affects not only children's wellbeing but their capacity to learn and engage in school-related work. Research shows that domestic violence increased with the length of school closure, and is higher in families with more children.[224]

Since vulnerable children have lower self-efficacy and a lower sense of belonging to a school,[225] and teachers' attitudes towards them often go with low expectations, additional adverse factors listed above exacerbate the risk of vulnerable children to disengage during school closure and drop out.[226] Figure 6.6 shows the estimated increase of performance gap in PISA between the richest and poorest quintiles as a consequence of the aforementioned factors.[227]

***Figure 6.6 Estimated increase of performance gap in PISA between the richest and poorest quintiles as a consequence of the COVID crisis.***




*Source: PISA 2018 data, World Bank staff calculations.*
*Note: 40 points in PISA scale - 1 year of schooling. ESCS: Economic, Social, Cultural Status.*

224 Save the Children: The hidden impact of Covid-19 on child protection and wellbeing.

225 OECD PISA 2018 Database.

226 OECD (2020). Strengthening online learning when schools are closed: The role of families and teachers in supporting students during the COVID-19 crisis. https://read.oecd-ilibrary.org/view/?ref=136_136615-o13x4bkowa&title=Strengthening-online-learning-when-schools-are-closed.

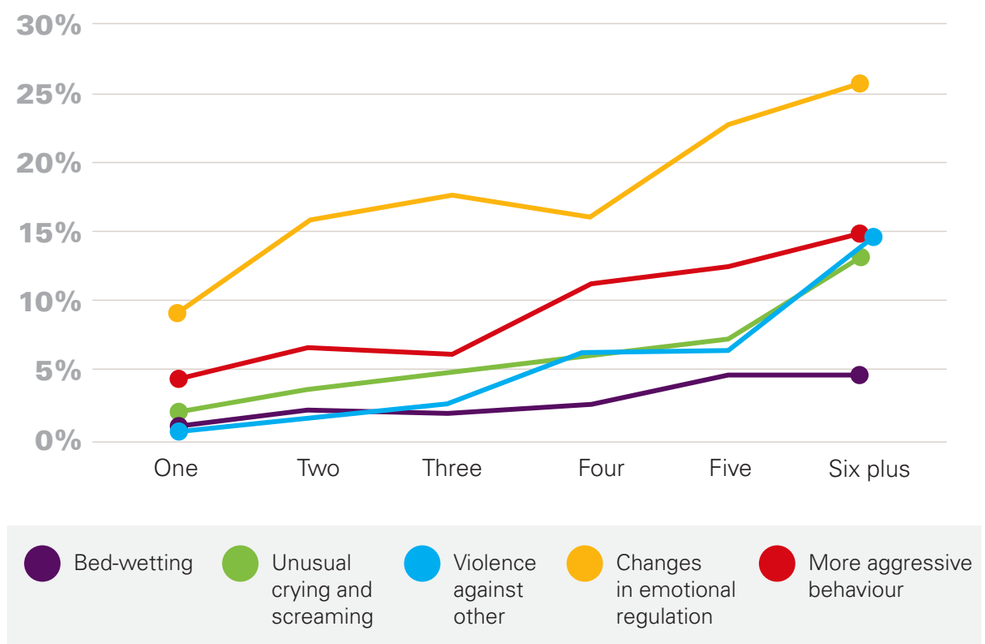
227 World Bank Group: *The Economic and Social Impact of COVID-19. Education.* Western Balkans regular economic report No.17. Spring 2020. http://documents.worldbank.org/curated/en/932621590693246041/The-Economic-and-Social-Impact-of-COVID-19-Education.





In the case of children with special education needs, in addition to the barriers connected with low income, their situation has become more vulnerable during the COVID-19 crisis due to a lack of essential support services available in schools, daycare centres and resource centres, due to school closures and additional prevention measures. Parents of children with disabilities face additional challenges in the absence of support services.[228] There are reports showing that the wellbeing of children with special educational needs is being jeopardized more than of mainstream children. According to a Save the Children study, children with disabilities and chronic health conditions showed higher levels of bed-wetting, changes in emotional regulation, unusual crying and screaming, more aggressive behaviour and violence against others.[229] Also, negative feelings and problems with wellbeing increased with the number of children in the household.

***Figure 6.7 Proportion of children with signs of distress and number of children in the household***




*Source: The hidden impact of Covid-19 on child protection and wellbeing*

To reduce the frequency of these negative phenomena in Montenegro, teachers prepared individualized teaching materials in line with the Individual Development Educational Programme (IDEP). One of the school portal pages covering inclusive education, http://www.skolskiportal.edu.me/Pages/Inkluzivnoobrazovanje.aspx features materials that are adapted to the developmental characteristics and needs of the child, and which aim to serve as a model or idea for the preparation of individualized materials, by areas of development, work and subject programmes. A protocol for assessing the current developmental and academic status of children with special educational needs was developed in order to plan further quality learning, as well as instructions for a return to kindergarten/school after the COVID-19 pandemic, which includes instructions for children with special educational needs and distance learning instructions.

228 Save the Children: The hidden impact of Covid-19 on child protection and wellbeing.

229 Ibid.

## 6.4 The impact on the GoM's spending

**Lastly, the COVID-19 crisis also had a financial impact, caused a GoM budget revision that also impacted the education sector.** COVID-19 also affected the GoM budget, on the one hand, because of increased targeted spending on, for example, the health sector and economic support programmes, while at the same time being confronted with an expected reduction in budget revenues as a result of the decline in economic activity. This induced the GoM to revise its budget in June 2020 from €2.64 million to €2.58 million (–2.4%). The budget revision enabled the GoM to meet the conditions for new borrowing from international organizations. Within the revised budget, the expected revenues were adjusted downwards from the original level of €2.0 billion to €1.7 billion (–17%) while the 2020 budget deficit was adjusted upwards by €50 million to €336 million (+572%).

***Table 6.2 Mid-year revised GoM budget 2020 in €***

| Budget | Original budget 2020 | Revised budget 2020 | Difference |
|---|---|---|---|
| **Revenues** | 2,054,360,284 | 1,704,989,611 | –349,370,673 |
| **Expenditures** | 2,104,320,533 | 2,040,879,206 | –63,441,327 |
| **Deficit** | –49,960,249 | –335,889,595 | –285,929,346 |
| **Overall balance** | –590,560,249 | –877,489,595 | –286,929,346 |
| **Total budget receipts** | 2,644,920,533 | 2,582,479,206 | –62,441,327 |

*Source: UNICEF calculations based on MoF 2020 revised budget data*

**Also the education sector was affected by a budget cut of overall of €2.1 million, a difference of 1.1 percent of the total budget.** The budget revision affecting the MoESCS (at that time still the MoE) was €1.3 million (–0.8%). The actual realization data over 2020 is not yet available, but the MoESCS has indicated in the interviews that, based on provisional figures, it is expected that actual expenditures will not vary much compared with the revised budget.

***Table 6.3 Budget revision of the MoESCS, June 2020***

| Institution | Original budget 2020 | Revised budget 2020 | Difference (absolute) | Difference as a percentage |
|---|---|---|---|---|
| **Ministry of Education, Science, Culture and Sports** | 169,346,072 | 168,039,654 | –1,306,418 | –0.8% |
| **Educational Institutions** | 26,104,156 | 25,274,306 | –829,850 | –3.2% |
| **- Examination Centre** | 888,309 | *783,209* | *– 105,100* | –11.8% |
| **- Centre for Vocational Education** | *756,892* | *644,442* | *– 112,450* | –14.9% |
| **- Bureau for Education Services** | *1,534,336* | *1,197,336* | *–337,000* | –22.0% |
| **- Other educational institutions*** | *22,924,619* | *22,649,319* | *–275,300* | –1.2% |
| **Total** | 195,450,228 | 193,313,960 | –2,136,268 | –1.1% |

*Source: UNICEF calculations based on the MoF's 2020 revised budget data*





**The budget cuts are disproportionally concentrated on specific budget lines, thereby having a huge impact on certain activities.** While in relative numbers this might be seen as a small cut with a therefore limited impact, it should be kept in mind, as shown in Chapter 5, that 84 percent of the education budget is dedicated to wage costs, which is a less flexible category for making savings. It is therefore not surprising that the largest share (86%) of budget cuts for the Ministry of Education refers to a reduction in the cost of services and material costs.[230]

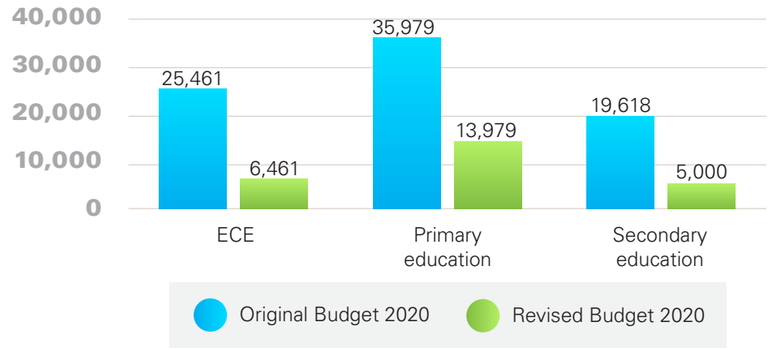
***Table 6.4 Breakdown of 2020 (revised) budget for services and materials in €***

| Ministry of Education | Budget for services | | | Budget for materials | | |
|---|---|---|---|---|---|---|
| | Original budget 2020 | Revised budget 2020 | Difference | Original budget 2020 | Revised budget 2020 | Difference |
| Preschool education | 77,461 | 44,461 | –33,000 | 526,984 | 431,984 | –95,000 |
| Primary education | 874,480 | 562,480 | –312,000 | 1,818,585 | 1,568,585 | –250,000 |
| Secondary education | 229,619 | 100,001 | –129,618 | 1,070,238 | 923,238 | –147,000 |
| Pupil's and student's standard | 0 | 0 | 0 | 607,201 | 605,201 | –2,000 |
| Administration | 370,500 | 277,700 | –92,800 | 49,411 | 39,411 | –10,000 |
| Programme: Institute for Textbooks and Teaching Aids | 0 | 0 | 0 | 130,000 | 130,000 | 0 |
| Programme: Higher Education | 217,001 | 166,001 | –51,000 | | | 0 |
| Programme: Fund for Dual Education | 50,000 | 50,000 | 0 | 0 | | 0 |
| **Total** | **1,819,061** | **1,200,643** | **–618,418** | **4,202,419** | **3,698,419** | **–504,000** |

*Source: UNICEF Calculations based on the MoF's 2020 revised budget data*

Another clear example of the impact of the COVID-19 budget revisions is the budget for the professional developmental services of teachers, which were reduced from €81,050 to €25,440, which represents a reduction of 68 percent compared to the originally planned budget for 2020.

***Figure 6.8 Budget allocation for developmental services of teachers in €***




*Source: UNICEF calculations based on the MoF's 2020 revised budget data*

230 Costs of services include: i) legal and notary services, ii) consulting services, projects and studies, iii) professional development services, iv) other services. Material costs include costs for: i) administrative material, ii) healthcare material, iii) special-purpose material, iv) energy expenditure.

**Also, in 2021, the financial impact of COVID-19 will be felt in the education sector, leaving very little room to manoeuvre in the short run.** For 2022, the possibilities will depend on the speed of economic recovery as also described in Chapter 1, the ability to restore and improve the GoM's tax revenue generation and the potential of any additional sources of external funding to support the implementation of the Education Sector Plan. The currently situation enforces the need to systematically identify any inefficiencies in the system, while at the same time working towards recovery and further strengthening of the education system.

EDUCATION SECTOR ANALYSIS 2015–2020

## 6.5 Conclusions and recommendations

**Quality** – The World Bank has projected that, due to school closures and other COVID measures, the PISA score in the Balkans may drop by 16 points and the percentage of students below basic proficiency in reading may increase from the current 53 percent to 61 percent, creating a major knock-on effect on human resource development. The concern regarding learning loss needs to be supplemented by wellbeing concerns. Research into student wellbeing during COVID-19 lockdowns detected diverse concerns of children, such as fears of getting sick, depression and loneliness. While COVID-19 hit the education sector unexpectedly and hard, there is still a great deal that the system can do/could have done, for example, to compensate for the learning loss. This is why it is important to make the system more resilient in the future, as well as to respect the recommendations based on international research and policy studies and the views aired by participants in Montenegro, who also suggested the following:

- It is essential to invest in the development of teacher's digital skills in those areas most important for organizing interactive distance-learning sessions;
- A wide range of diverse but high-quality and pedagogically modelled digital educational content has to be prepared and provided for teachers to use in their classes, instead of leaving it only to their inventiveness, good will and inspiration – for this, international cooperation and exchange between countries speaking similar languages could be an option to explore;
- Banks of appropriate assessment units need to be prepared and offered for use by the teachers – these units should include ideas for project work, group work, authentic small research engagements for students, using all the possibilities online education and digital media offer;
- Student interaction needs to be fostered even during school lockdown – via online group work and/or periodic face-to-face events;
- More psychological support needs to be made available for all students who need it;
- Online safety measures need to be introduced so that children can protect themselves from cyberbullying and other criminal cyber-attacks;
- More and better-targeted communication with teachers needs to be ensured, especially for areas of the curriculum where parents' skills and knowledge are lacking;
- Overall, a well-functioning and well-coordinated system of support and monitoring is needed, with well-developed horizontal and vertical institutional links;
- Listening to children's opinions and seeking out their accounts about their experiences of schooling and living during the pandemic, school closures, distance learning and all aspects of their unusual life situation is a must.

**Equity –** Data presented in this chapter indicates the insufficient capacities of the education systems (in Montenegro, but also worldwide) to protect children in vulnerable groups from the aggravated adverse impact of the COVID-19 crisis on their education and wellbeing. The grim prognosis of the education prospects of children from vulnerable groups holds true for Montenegro as well. Since deep ruptures are detected on multiple levels (uneven

access to infrastructure, low capacity for educational and ICT support from parents, lack of support from teachers and serious wellbeing challenges), there is a realistic risk that isolated measures will not have sustained positive effects. Therefore the education system needs to find a safe way, while respecting the public health measures, to organize face-to-face instruction for children from vulnerable groups even during the pandemic. A move to partial distance education can ensue only after equipment is guaranteed and individualized, thorough support is provided that will ensure a firm basis for the children's skills in using the platforms for learning, motivation, self-regulation and confidence in contacting teachers, assistants and associates whenever a need is perceived.

**Financing –** While the 2020 budget revision was seemingly low at €1.3 million (–0.8%), the largest share (86%) of budget cuts were concentrated in a certain part of the budget where there was a major impact on spending ability. The budget for the cost of services and material costs reduced by 86 percent. The budget for professional developmental services of teachers was reduced by 68 percent, compared to the originally planned budget for 2020, showing a huge impact on certain activities.

Also in 2021, the financial impact of COVID-19 will be felt in the education sector, leaving very little room for manoeuvre in the short run. The current situation, therefore, only enforces the need to systematically identify any inefficiencies in the system, and to plan ahead towards the recovery and strengthening of the education system.



# 7 Conclusion and recommendations

## 7.1 Key findings

The ESA was aimed at providing an overall assessment of the state of the education system in Montenegro, highlighting the strengths and weaknesses in order to inform high-quality future policymaking. The key findings include the following:

1) **In general, the Montenegrin education system is achieving solid results in terms of enrolment at the primary and secondary levels. Enrolment in public ECE shows a clear positive trend, yet overall ECE enrolment is still significantly behind European averages. Also, in terms of internal efficiency, Montenegro is performing well, with low repetition rates, improving completion rates and a decline in the dropping out of children who are in school.**

   a. **Enrolment ratios:** Montenegro has very high results when it comes to the effective promotion rate (primary education – between 99 and 100 percent; four-year secondary education – 97 to 98 percent; and three-year secondary education – 92 to 94 percent); then there is also a very high score achieved on the effective transition rate between education cycles (96.7–97.7%), as well as a very high score on the survival rate (last grade of primary education – 96.77 percent; last grade of four-year secondary education – 93.83 percent; and last year of three-year secondary education – 88.19 percent). The score that Montenegro is achieving when it comes to school life expectancy (SLE) has improved to 12.25 years, which is considered satisfactory, especially if we bear in mind that secondary education in Montenegro is not compulsory and the total duration of primary and secondary education in Montenegro is a total of 13 years.

   b. **Gross intake:** A point of attention is the very high gross intake rate, which can be explained by the number of over-age and under-age pupils who enrol in primary school for the first time. In 2020, almost 14 percent of new entrants to the first grade of primary school were children who are over-age or under-age entering the first grade for the first time.

   c. **Drop-out:** Data very much suggests that the number of pupils dropping out has decreased, but the rates are still severe in the Roma and Egyptian population (see also point 5).

2) **Nevertheless, the good performance in internal efficiency seems to be somewhat problematic because it does not correspond to the achievements of Montenegrin students in terms of learning outcomes. The quality of education in Montenegro is low in international comparisons (PISA results), and calls into question the effectiveness of investment in education in Montenegro. The national tests and exams do not capture these comparisons and, hence, understandably the results of the national assessments are not eliciting concerns of similar seriousness.**

a. **Low international performance:** The quality of education in Montenegro is low in international comparison, both in the fourth grade of primary school and in the first year of upper-secondary education. It has to be noted that the PISA results do not reflect the performance of all 15-year-old children in Montenegro, given that 13 percent of the cohort does not reach secondary school enrolment.

b. **Low distribution of scores:** An additional serious concern is the distribution of scores: on both tests, more than 40 percent of students are below the level of the international benchmark for "low performance" – these more than 40 percent of students, despite participating in education, did not reach the minimum levels of competencies, while only a negligible percentage of students have high achievements (1.6 percent, 1 percent and less – in PISA levels 5 and 6, and in TIMSS "advanced", respectively). This percentage is, on average, around 10 percent in OECD countries and amounts to 20 percent or more in the best-performing ones.

c. **Progress made in mathematics:** An exception to these unfavourable results is mathematics, where, both in TIMSS and in PISA, valid indications of progress and innovation are detected.

3) **Based on the analysis and interviews, there is reason to further explore three sets of problems that could restrict the learning outcomes in Montenegro: learning time and learning conditions, teacher skills and non-cognitive factors.**

a. **Learning time and learning conditions**: The first set refers to factors effective at the level of learning time and learning conditions. Montenegro has a comparatively low number of school days annually, limiting exposure to instruction and possibly contributing to unfavourable results. Due to imbalances in the school network in Montenegro, there are schools with an unmanageably high number of students, leading to overloaded classes that clearly limit constructive and learning-oriented interaction and instruction, and provide limited opportunities for individualization, after-school extracurricular activities or remedial instruction for children at risk of low achievement. Some secondary schools have bigger classes more often, which in turn can hamper the full development of the children's potentials, and contribute to a very low percentage of high achievers. Finally, secondary education is not yet compulsory in Montenegro, hence the education system is not sending a strong enough message to the young generations that, without at least secondary education, entry to decent employment is not possible.

b. **Teacher's skills**: The second set of problems might originate from teachers' underdeveloped skills in conducting education in accordance with an outcome- and competence-oriented curriculum, resulting in traditional lecturing, predominantly requesting knowledge reproduction and home learning (see also point 5).

c. **Non-cognitive factors:**[231] The third set of problems is connected to non-cognitive factors and their potential inhibitive effect upon learning and obtaining high learning outcomes. Based on PISA results and confirmed through interviews, a pattern contributing to low achievements arises from an overwhelmingly strict disciplinary climate in schools, combined with tolerance of high truancy and tardiness. Based on informal information and also corresponding to data from the Examination Centre's comparison of inflated school grades with test results, students are very often absent from school in late spring/end of the second school semester, when the time of final grade closures and examinations approaches, as they often stay at home in order to revise for tests. Furthermore, the pattern includes a high percentage of students with a "fixed mindset", i.e. a false understanding that intelligence cannot be changed and that development is not really possible. This pattern indicates that in many schools there may be a school culture lacking genuine commitment and motivation, engaging and meaningful learning activities, and a socially, emotionally and cognitively nurturing environment. As educational psychologists would say: a "cold cognitive economy" that fosters coping is prevailing, instead of a "hot cognitive economy" fostering development, curiosity, critical thinking, active engagement, exploration and risking-taking initiatives. Programmes addressing the social and emotional aspect of teachers' work with students could effectively contribute to alleviation of the detected problem.

231 Referring to the characteristics of the school climate and school support, as well as socio-emotional and motivational influences





4) **There seem to be sufficient teachers in the system but an insufficient number of advisory staff (school psychologists, pedagogists, etc.). Unfortunately, there is no reliable aggregated dataset that can provide a complete and detailed overview of current education staffing, which has hampered this part of the ESA. To an even greater extent, not having adequate data on the total number of teachers is obviously very problematic for planning of future needs. Based on the available data, we have concluded that there is a need to employ younger teaching staff according to the projection of the demand for teachers, as well as to promote the teaching profession among high school/future university students.**

a. **Recruitment:** During the last five years, the need for hiring teaching staff has increased significantly and the number of unemployed teachers has slightly decreased. However, the data also indicates a very pronounced systemic problem of the so-called structural unemployment of teachers. Namely, while, on the one hand, we had a steady increase in newly created teacher jobs between 2015–2017 (57.33%), on the other hand, we recorded a significantly weaker decline in unemployed teachers in the same period (20.07%). This result of the analysis clearly indicates that there is a certain type of inconsistency in educational policies when enrolling students/future teachers at those faculties that educate the teaching staff and the needs of the educational system itself.

b. **Age structure:** It is noticeable that the most represented groups of teachers are from 30 to 39 years old and from 40 to 49 years old, which could be assessed as satisfactory. But on the other hand, the percentage of teachers above 60 years old is growing, while the percentage of teachers in the age group of 20 to 30 years old is declining, and the percentage of teachers of this age is very small compared to the overall teacher population (11.55%).

c. **Job satisfaction**: The survey we conducted for the purpose of the ESA indicates a high dissatisfaction among teachers about many aspects of their profession (societal status, salary, material and pedagogical conditions in schools and issues related to realization of teaching under the current epidemic caused by COVID-19).

5) **Teacher training has been reformed to improve the overall quality, while the progress made in the reform process is far from completed and, in particular, the development of pedagogical, psychological and didactic knowledge and skills needs further strengthening.**

a. **Teachers' qualifications:** The Montenegrin education system has a relatively satisfactorily educated teaching staff. However, deeper analysis indicates that in preschools and primary schools there are still a large number of teachers with less than a bachelor-level qualification. Moreover, the percentage of fully qualified teachers with master's degrees or 300 ECTS is negligeable and therefore Montenegro is not able to follow the EU average and regional trends of educational policy in this domain, and is not providing a high enough quality of teaching for its new generations. Therefore, the study programmes of teacher training faculties should be harmonized, flexible and modularized, to reflect the needs of a modern educational system.

b. **Professional development of teachers:** Teacher training is required, and there is a wide range of training courses on offer, but their impact is not monitored and regular evaluation of the system is not conducted. Therefore it is recommended to conduct an overall evaluation of the professional development system, to identify the sources of implementation gaps and competency areas not covered by the courses, and to develop steps towards a training system that includes a stronger emphasis on school-based professional development.

6) **The GoM has well-developed policies and innovative practices regarding the inclusive education of children who need additional support for their education. While there are no tuition fees, education is not completely free-of-charge and there are still equity concerns to address. Paradoxically, the equity of education is more seriously compromised at the lower levels of education and less at the higher levels, where the student body has already shrunk, and the number of children from diverse vulnerable groups is much smaller than in primary education.**

a. **Gender:** Equity problems in Montenegro do not primarily originate in typical gender differences, neither in its early stages nor in secondary education. According to several indicators, it rather seems that the gender imbalance is somewhat reversed, whereby girls have sustained better results and boys are more often found among repeaters and those dropping out of school.

b. **Poverty:** The equity problems in Montenegro are mostly connected to wealth indicators. Being in the bottom quintile regarding family income is a major factor limiting the education progression of a child. Disparities are discernible already at the preschool attendance level, and even more so in the completion of primary school, attendance at secondary school and completion of secondary school. Data indicates that children from poorer families and rural areas, and children whose parents/guardians have a low level of education do not enjoy the same opportunities for early development and that, consequently, there is a need to involve them in preschool education to a greater extent and to support their parents in providing a more supportive family environment for their early development. The fact that a large percentage of poor children do not complete primary school creates the risk of them lingering in the vicious circle of poverty.





c. **Minority groups:** Most seriously jeopardized are Roma and Egyptian students, who face multiple barriers that the integration measures implemented so far have started to ease but have not eliminated. Despite certain improving trends, primary school completion is still a considerable challenge for these children, especially for the poorest among them, which makes enrolment in and completion of secondary education extremely rare. There are alarming indicators presented in the MICS and MICS EAGLE snapshot that call for urgent action.

d. **Children with special education needs.** Data on children with SEN provides a clear indication that the inclusive policies are being successfully implemented in primary schools, while in secondary schools the effects are somewhat less visible. There is no data on the number of children with disabilities at the state level, so it is necessary to invest efforts in more elaborate and reliable data collection in this area in order to guide policy and practice in the future and to ensure that children with disabilities learn and progress to their full potential. In addition, the strong and efficient involvement of all relevant sectors is needed, especially in the area of early detection and provision of early intervention services.

7) **The GoM's expenditures on education have grown in the last six years, but are still low by international standards. While efficiency indicators are positive, there are concerns regarding the quality of education. Therefore, it is important to improve the effectiveness of education to achieve better value for money in governance and service delivery.**

a. **Level of allocations:** Even though Montenegro has increased its relative share from 7.6 percent in 2015 to 8.2 percent in 2017, thereby lowering the gap with its peers, it is still at the lower end of the spectrum and far from the international benchmark of committing 15 to 20 percent of public spending for education. The overall low budget allocations for the education sector in Montenegro are, most likely, an important contributor to the increasing imbalance between wage and non-wage costs. This finding in itself could justify an increase in the education budget; however any substantial budget increase request will be better-placed when accompanied with a comprehensive costed sector plan, complemented with an evidence-based HR plan.

b. **Cost per child:** Both in absolute and in relative terms, spending on ECE increased, and this increase was more than the increase in enrolment, resulting in higher average amounts spent per child. Also, there was an absolute increase in spending on primary and secondary education. With total absolute enrolment figures remaining relatively stable, this also resulted in higher average spending per pupil. It is however questionable to what degree this increase in spending also led to an increase in investments in the quality of education, because during the same period the share of the MoESCS's budget spent on salary costs also increased.

c. **Capital investments:** In total, the GoM has spent €30.4 million on school infrastructure in the last six years. Of this, 32 percent was invested in ECE, 26 percent in higher education, 24 percent in primary education and 17 percent in vocational secondary education. While the financial figures show a consistent increase in the national capital spending, the share of the national capital budget spent on education has substantially decreased each year since 2016, down to only 5 percent in 2020.

This lean allocation is in sharp contrast to the pressing school infrastructure situation affecting the majority of children in schools at the ECE, primary and secondary levels.

d. **Household contributions:** There is insufficient data available to state a reliable amount of household contributions to education. The Household Budget Survey shows relatively low contributions to education, but this is an underestimated figure given the costs that parents face in terms of secondary education textbooks, transport, nutrition, etc. As shown by the equity analysis, the economic cost can still be high for parents as it is mostly children from a poorer background who risk dropping out before completing education.

e. **Efficiency and effectiveness:** While outside the scope of the ESA, the broader question on the efficiency and effectiveness of education spending is relevant. The analysis however underlines that given the overall resource constraints, it is of particular importance to identify any inefficiencies in the system. An HR assessment is a good starting point to collect further evidence if there are currently any inefficiencies in either teacher training or in teacher placement that need to be addressed. Also, the mapping of investments for future school infrastructure is highly relevant given the current mismatch between demand and supply

8) **In terms of system management, there has been a continuing process of improvements which have resulted in, among other things, a network of professional institutions at the national level, and a coherent and comprehensive quality assurance system has been established. Moreover, a strategic and legislative framework for education has been developed, updated and modernized. Nonetheless there is room for improvement, in particular related to evidence-based policymaking.**

a. **Data collection and utilization:** While there is a considerable amount of data produced and collected about inputs, processes and outputs in terms of learning outcomes, the use of the data for school-level, local or national improvements is in question.

b. **Fragmentation:** While all background institutions have a clear mandate and relevant scope of work, cooperation between them is not effective enough, thus creating an impression of fragmentation that can hamper joint commitment for ensuring a high quality of education.

c. **M&E:** Systematic monitoring and evaluation of impact is not usual practice: the very detailed high-quality work, knowledge and skills invested in the complex exercise of external evaluation of schools is not being fully capitalized upon and external evaluation does not have the policy impact it could have. The lack of independent monitoring and evaluation and the lack of independent, thematic targeted reporting can impede further policymaking for an increased quality and equity of education, as the measures and interventions that have been used so far are not fully effective. Therefore the quality assurance system of education needs to be strengthened and rendered more functional and effective.





9) **Transition from school into work is not guaranteed, because the unemployment rate in Montenegro is high and, in particular, youth unemployment is at high levels although there was a clear positive trend before the pandemic started (2015–2019).**

a. **Vocational education:** Various studies have indicated that there is a mismatch between the education system and the labour market. Reforms and investments in vocational education aim to provide a better match with the labour market.

b. **Social impact:** The social impact of education is clearly visible in the relationship between the highest attained level of education and the risk of poverty. Children of parents with a low level of education are particularly vulnerable of falling into poverty.

10) **Looking forward, there are two major concerns outside the direct control of the MoESCS that need to be taken into account for future planning. These concern the demographic changes and the general economic outlook, in particular considering the impact of the COVID-19 pandemic.**

a. **Demography:** The majority of students are enrolled in a relatively small number of schools which are forced to work on the principle of shifts, while the majority of schools are not using their full capacity. The trend of high internal migration/urbanization will only create more pressure on the already extreme disbalance in school network utilization. At the same time, the overall school-aged population is in relative decline, which, in combination of the trend of urbanization will decrease the demand for education in certain areas of the country. Data seems to suggest that teachers are not following population migration at the same pace, which may create further future imbalances between densely and modestly populated areas. While the overall population is aging, the age structure of teachers is also aging and is expected to lead to higher teacher attrition in the near future due to retirements. All of the above point in the direction of a clear need for future infrastructure and HR planning that takes into account these demographic changes.

b. **COVID-19 impact:** It is clear that the pandemic has caused major disruptions to the education system that have to be dealt with, such as the potentially lower learning outcomes and increased wealth-related risks of dropping out that can affect the entire generation currently in school. Not all are necessarily negative, as the crisis has also accelerated investments in ICT which will be beneficial in the longer term.

c. **Economic outlook:** Even before COVID-19, there were some signs of economic slowdown, but the consequences of the pandemic have been catastrophic for Montenegro with negative growth of more than –15 percent and a worsening debt position. This makes it very unlikely that in the short run there will be any substantial additional funding available for education from internal revenues. Solutions are to be sought in innovative and cost-effective strategic planning.

## 7.2 Recommendations

While the ESA identified substantial improvements in various areas of the education sector in the period 2015–2020, some progress in performance might be (temporarily) set back due to the impact of COVID-19. The analysis further identified that, already before COVID-19, the education system was facing some serious weaknesses. These weaknesses require the GoM to devoting sufficient financial allocations, while working towards recovery and further strengthening of the education system. The current financial situation imposes the need to ensure that scarce resources are used efficiently and effectively. It is therefore recommended to:

1) **Strengthen the strategic planning function within the MoESCS and work towards an integral Education Sector Plan (ESP) covering all levels of education. The ESP must contain clear and realistic targets based on evidence.** As part of developing the ESP, it is recommended to collect more in-depth evidence on the actual need for infrastructure and human resources:

   a. **Make a mapping of the existing school infrastructure** to ensure maximum efficiency in resource utilization and the best benefits for students. The mapping could, for instance, look into the following questions:

   - Which schools are underutilized and for what reasons?
   - Are there any underutilized schools within reach of overcrowded schools that can be repurposed by rehabilitation works, transport measures, curriculum adaptions, etc.?
   - What and where is the need for new infrastructure, based on student projection models?
   - Should the norm/maximum allowed group sizes in overcrowded schools be revised?
   - Can greater cooperation between schools facilitate a better distribution of students?
   - See how school planning can link up with broader multi-sector regional development plans.

   b. **Set up a reliable national HR database** for education, which can be used for future HR planning:

   - Determine the need for future teachers by level, subject, region, etc. by using student projection models.
   - Assess teacher salary policies in relation to the fiscal space.
   - Include in the HR database information about the training and promotion of each teacher and use these for all analytical and planning purposes.
   - Assess the possibilities for and benefits from dual-profiles for teachers.
   - Review the adequacy of teachers' weekly teaching hours and explore the feasibility of increasing them.
   - Review and increase the number of professional advisors in schools (psychologists, pedagogists, etc.).





The outcomes of these two assessments are essential inputs for effective strategic planning and are of the highest priority. In addition, it is recommended that the ESP contain a roadmap that will encourage measures to:

2) **Improve equity and encourage enrolment and school retention** at all levels, by:

   - Continuing to increase the coverage in ECE, which will contribute to better preparation of children for primary school and thus reduce the delay in enrolment for children from deprived categories of the population.
   - Continuous awareness-raising campaigns for the entire population about the importance of early education and the completion of secondary education, and specifically targeting parents to promote starting primary education at the right age.
   - Exploring the possibility of making secondary education compulsory.
   - Exploring alternative social-financial support measures, such as stipends and student loans, to ensure compensation for the family income loss incurred if the child continues with schooling.
   - Support cross-sector cooperation and strengthen links between social protection, health and education support.
   - Review the quality, effectiveness and impact of the Roma and Egyptian integration mechanisms already implemented, together with successful school completion support.
   - Proactively discuss, formulate and implement more effective, sustained and predictable measures to support the education of Roma and Egyptian students.
   - Place stronger focus on inclusive education measures, conduct continuous awareness-raising campaigns, and ensure the full inclusion of all students with special needs in all levels of education, including secondary education; additionally, provide system-wide connections between competent sectors – health and social welfare, in particular.
   - Explore the reasons for the lower performance of Albanian-speaking students on PISA and mitigate the problems.

3) **Improve the quality of education by:**

   - Reviewing the curriculum with a focus on acquiring competencies, overseeing its consistent implementation in class using constructivist teaching methodologies (such as cooperative learning), and ensuring that teacher autonomy is used for creating motivating and enriching learning situations for all students.
   - Smart integration of digital tools and technologies into education and harnessing their potential for improving quality, the relevance of inclusiveness and the resilience of the education system.
   - Introducing, supporting and monitoring the implementation of formative assessment at all levels and in all subjects, and ensure that integrity problems are not influencing grades.

- Monitoring student wellbeing and mental health (feeling of belonging to a school community, having a positive self-image, self-esteem and self-efficacy, having a growth mindset, high expectations for further education, etc.) and creating support measures for their social and emotional development.
- Increasing the number of school support staff.
- Identifying, recognizing and disseminating existing good practices within and between schools.

### 4) Improve and harmonize pre-service and in-service teacher education by:

- Speeding up initial teacher education reform, especially to modernize and align the content to the Standards for Teacher Competencies and increase the number of ECTS devoted to professional (psychological-pedagogical-didactic) studies and practical studies (school practice) in initial teacher education to levels comparable to initial teacher education in EU member states.
- Setting up a mechanism for ensuring professional (psychological-pedagogical-didactic) studies for prospective teachers in vocational education.
- Reviewing the selection procedures of students enrolling in teacher training university programmes.
- Revising the concept of professional development, in particular to promote the offer of those forms of professional development that are more contextual and to introduce measures ensuring the implementation of new skills in everyday teaching (such as portfolio assessment several weeks after the training).
- Ensuring adequate incentives for teachers' career development.
- Working towards establishing regional centres for continuing professional development of teaching staff.

### 5) Stimulate a better enabling environment, by:

- Examining the adequacy of the number of school days and contact hours and moving to one-shift schooling wherever possible.
- Targeted investments in ICT and specialized laboratory classroom infrastructure and development of teachers' digital competencies.
- Improving the school culture by creating more opportunities for the meaningful engagement of students, supporting the development of students' growth mindset, and cooperation.
- Upgraded involvement of parents in school-level decision making and their role in advising education policy, including parents from vulnerable groups.
- Supporting students' self-organization and allowing more relevant roles in school life.



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### 6) As part of the process, it is further recommended to:

- Build the sector's capacity to improve the monitoring and evaluation function and data utilization in a systematic way and at different age levels by means of increasing the number of highly qualified staff, additional networking with partner institutions at the international level, etc.
- Strengthen the resilience of the education sector system.
- Ensure sufficient resources and cost-effective spending.

All of the above recommendations will have their cost, while it is well understood that, at this point of time, there is limited fiscal room to manoeuvre. It is recommended to:

- **Fully cost the ESP with different scenarios of ambition, depending on the speed of the economic recovery.**
- **Review the adequacy of the current level of allocations to the education sector.** The fact that the current allocations to the education sector are low according to international comparison is a sensible argument for considering an increase in the GoM's allocations to the education sector to help boost the implementation of the ESP. Potential external funding could complement the implementation of (specific parts of) the ESP.
- **Identify and address any inefficiencies in the system.** An education finance analysis including a public expenditure review may help answer questions about whether public resources are being used efficiently and effectively in relation to the government's policies and standards.



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# 9 ANNEXES



## 9.1 Annex 1: Methodology

**Purpose**

This ESA has been prepared as a comprehensive assessment of the education sector, drawing on a wide range of available secondary data, previous studies and research papers, as well as on new evidence collected through stakeholder interviews and a job satisfaction survey. The ESA serves as an input for the future development of a long-term evidence-based Education Sector Plan for Montenegro to provide quality education for all.

**Target audience**

The ESA target audience includes both the GoM and other stakeholders working in or aligned with the education sector. It aims to strengthen the knowledge base and to support the GoM and other relevant stakeholders in policymaking and advocacy for generating greater effectiveness of the education system through stimulating policy debate, suggesting recommendations to improve the effectiveness of the education system and by identifying neglected areas that deserve further analysis.

**Scope**

The focus is on quantitative data covering the period 2015–2020, being the last full reporting year for which data is available. Tertiary and private education fall outside the scope of the assessment. Initially, the ESA was expected to be published in 2020, covering the data period 2015–2019. However, to include an analysis of the impact of the COVID-19 on the education sector, the scope (and timeline) of the ESA was extended to include also data on 2020, which became available in the course of 2020.

**Terms of reference**

The ESA has been structured along the lines of the indicative research questions that were listed in the ToR. Some modifications were made where necessary. Given the wealth of information that was available as well as the additional analysis on COVID-19, the total length of the ESA has been extended in consultation with the project's steering group.

**Methodology**

The report is organized along six dimensions and aligned with the Education Sector Analysis Methodological Guidelines developed by UNESCO, the World Bank (WB), UNICEF and the Global Partnership for Education (GPE) in 2014.[232] The ESA guidelines, which are publicly available online, present a detailed methodology for the analysis. These guidelines have used during the process of data collection, analysis and interpretation. The Methodological Guidelines discusses the context for the development of the education sector, enrolment, internal efficiency, out-of-school children, cost and financing, quality, system capacity and management, external efficiency and equity. The formulas that were used to calculate the main ratios presented in the report can be found in the ESA guidelines: http://www.iiep.unesco.org/en/publication/education-sector-analysis-methodological-guidelines-vol-1-sector-wide-analysis-emphasis.

232 Education Sector Analysis, Methodological Guidelines, UNESCO, The World Bank, UNICEF and the GPE, September 2014.





For Montenegro's ESA, being the first one in the region, the team closely followed the guidelines, but also made a few adjustments to better align with the local circumstances:

- The team changed the order of the chapters to ensure a more logical story line of the analysis.
- Where needed, the team adjusted the analysis to the local context. While the ESA guidelines are illustrated with numerous examples from completed ESAs, they are mainly (but not solely) from African countries' ESAs, because so far the methodology has been mainly applied in African countries.

And, as mentioned above, the scope of the ESA was extended to include an analysis of the impact of COVID-19 on the education sector. To ensure that the ESA was not already outdated before its publication, but provides quality and fully up-to-date findings and recommendations for further planning and decision making, the UNICEF team together with the MoESCS broadened the scope of this ESA to encompass an assessment of the challenges brought about by COVID-19. The analysis has been expanded in the following manner:

- To update and expand the analysis of the development context of the education sector to assess, as much as possible, the impact of the COVID-19 crisis through the most up-to-date available national and international sources and data, as well as through interviews with stakeholders.
- To update and expand the analyses of education quality and access to education; to include the risk-responsiveness of the education system and the effect of the closure of schools on the continuity of education and distance teaching and learning, particularly on students from most vulnerable groups; and to take into consideration the situation after the COVID-19 crisis in terms of a safe return to school for all children, particularly those at risk of dropping out.
- To assess the cost and the social and economic impact of COVID-19 on education-sector financing, as well as to provide guidance for an integrated policy response to shocks and disasters in the education sector.
- To provide recommendations on relevant policy responses in the education sector.

**Approach**

The team used a four-step approach, which is further explained as follows:

- Inception phase
- Data-collection phase
- Analysis and reporting
- Validation

***Inception phase***

The main purpose of the inception phase was to build a shared understanding of the project goal and methodology, as well as capacity-building needs, to review and analyse the existing data and documents and to build a joint framework for productive collaboration. This phase resulted in an inception report which includes the first results of the desk study, a review of existing data and the methodological guidelines.

During the inception phase, the ESA team prepared a more detailed methodology that was developed based on the following key principles:

- **Principle 1**: The approach is in line with UNICEF's ethical, quality assurance principles and guidelines (including inter-agency ESA methodological guidelines) and international standards (especially those related to EU member countries).
- **Principle 2**: The ESA is based on the collection and analysis of the most recent qualitative and quantitative data (including the professional opinions of key actors and stakeholders).
- **Principle 3**: The ESA is developed in a participative way and will be a result of the collaboration with key institutions that have specific roles and responsibilities in the education system.
- **Principle 4**: The collaborative development of the ESA serves as an opportunity for developing the capacities of partner institutions that should ensure the further development of the ESA in the future.

### *Data collection phase*

The data collection was conducted through the analysis of available national and international documents, respective national legislation and regulations, reports and analysis, as well as through primary data collection from a wide range of key informants, resource persons and stakeholders (see Annex 3). Primary data collection was organized via semi-structured interviews and focus group discussions, as well as through an on-line questionnaire for teachers. This approach was chosen to ensure the triangulation of information from a cross-section of diverse stakeholders and the desk review's preliminary conclusions. Ethical guidelines were prepared and followed during the inception phase. No minors were interviewed.

### *Analysis, reporting and validation*

Based on the collected qualitative and quantitative data, the team completed the analysis in line with the ESA guidelines. The draft report was shared with the MoESCS, the UNICEF Country Office and the Regional Office for peer review. In addition, the team held consultation workshops with all key stakeholders on the draft's findings and conclusions, and incorporated their valuable feedback into this final version. This included five consultative workshops with representatives from:

- The MoESCS and educational institutions
- Teachers, students and parents
- NGOs
- International development partners
- The business sector
- Parliament

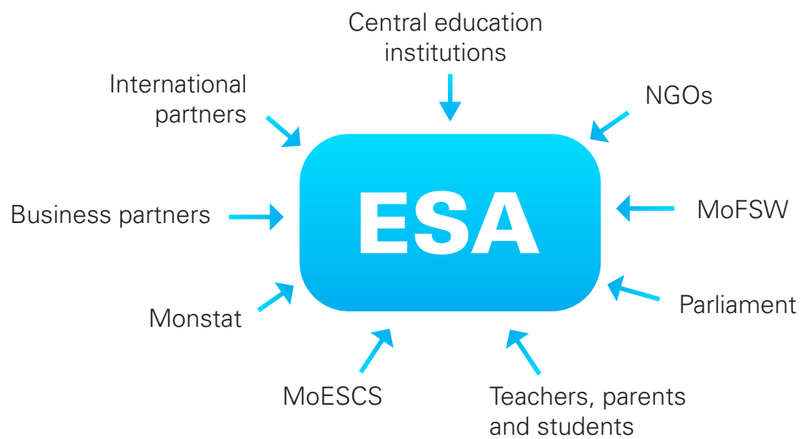




### Participatory approach

Stakeholders were consulted in the key stages of the study design and implementation, from inception to the development of recommendations. Stakeholders were given various opportunities to comment on the study design, findings and recommendations.

During the design of the methodology, and in line with the ToR, it was originally foreseen that there would be a larger possibility for capacity development.




The COVID-19 crisis has, unfortunately, prevented the team from closely collaborating with the stakeholders, including the Steering Committee and Reference Group, because it was not possible to carry out any field missions. Initially, this caused delays in the process. When it became apparent that the COVID-19 crisis was going to last for some time, the team adjusted to a different modality working remotely. In the initial days, this was still difficult, as people were not used to this. During the process, this became more common and even an efficient way of working. Nonetheless, the ESA team missed the opportunity of having more in-depth focus group discussions and intensive collaboration in terms of capacity building. Instead, the team held consultations and discussions with all the key stakeholders on the draft's findings and conclusions, and incorporated their valuable feedback into this final version.

### Ethical considerations

Throughout this assignment, Sofreco and its team were committed to producing a quality ESA guided by high moral and ethical principles. We were also committed to respecting and protecting the welfare of all participants that the team contacted throughout the assignment.

The methodology and tools have been developed in compliance with UNICEF's Procedure for Ethical Standards in Research, Evaluation, and Data Collection and Analysis, and Strategic Guidance Note on Institutionalizing Ethical Practice for UNICEF Research. Sofreco's team of experts took all the necessary precautions to ensure that no participants faced with any form of stigma, discrimination or harm during the interviewing and data collection processes.

***Interviews: Process, consent and participation***

To realize the ESA, our team of experts interviewed stakeholders: namely, the MoE, MoF, Reference Group, Steering Committee, Roma NGOs, youth representatives, UNICEF representatives in Montenegro, members of the UNICEF Regional Office and the UN Resident Coordinator. The full list of persons interviewed is found in Annex 3.

Prior to the interviews, any potential participants received an information sheet that presented and explained the purpose of the Education Sector Analysis and the added values of carrying out interviews. This document also included the guiding questionnaire that was used for the interviews. The team of experts made sure to obtain informed consent from all participants before the interviews (consent given by email or verbally).

The participants were selected by UNICEF staff and the expert team. The interview guidelines were tailored to each specific participant group and clearly state that participants have a choice on whether or not to participate, and can choose to leave at any time, without consequence.

Due to the COVID-19 crisis, the interviews took place remotely and were carried out individually and/or in groups of up to four interviewees per session.

The team did not interview any children or person under 18 years old. It is also important to mention that no payment or compensation was given to any research participant.

***Data protection and privacy***

Efforts have been made to ensure that all data is and remains confidential. Data has been secure on a remote, password-protected server (NetExplorer) that only the team can access. The data will be destroyed one month after the final report's approval/validation.

The participants' names have been recorded and stored securely separately from the other data and linked through a coding system. Names were not used in the ESA to ensure the anonymity of the findings.

***Risks and risk management***

It is likely that most participants faced minimal risk from taking part in the interviews. In order to avoid the possibility that employees, line-ministry employees, implementation partner employees and frontline workers could face any risk to their employment for revealing serious concerns about the activities or their superiors or the organization during the interviews, the team ensured the anonymity of the findings.





## 9.2 Annex 2: Key indicators

| Chapter 1 – Context of the education sector | 2015 | 2019 | 2020 |
|---|---|---|---|
| Population (Monstat) | 622,099 | 622,182 | 621,873 |
| Life expectancy, male (Monstat) | 74.7 | 74.0 | 73.2 |
| Life expectancy, female (Monstat) | 78.6 | 79.5 | 78.8 |
| Percentage of population <18 years (Monstat) | 23.9% | 23.1% | 21.7% |
| Infant mortality per 1,000 (Monstat) | 2.2 | 2.4 | 2.8 |
| Under-5 mortality per 1,000 (Monstat) | 3.1 | 3.6 | 3.7 |
| Unemployment rate (Monstat) | 17.6% | 15.1% | 17.9% |
| Youth unemployment (15–24) (Monstat) | 37.7 | 25.2 | 36.0 |
| Urbanization ratio (WDI) | 65.8% | 67.2% | 67.5% |
| Human development index (WDI) | 0.816 | 0.829 | N/A |
| Literacy rate >15 years (WDI) | 98.4% (2011) | 98.8% (2018) | N/A |
| Gini coefficient (EU-SILC) | 36.5 | 34.1 | N/A |
| Adult: Risk of poverty by highest level of education – less than secondary (EU-SILC) | 35.7 | 38.7 | N/A |
| Child: Risk of poverty by highest level of parents' education – less than secondary (EU-SILC) | 75.9 | 84.5 | N/A |
| Adult: Risk of poverty by highest level of education – secondary level (EU-SILC) | 22.3 | 19.6 | N/A |
| Child: Risk of poverty by highest level of parents' education – secondary level | 35.3 | 32.8 | N/A |
| Adult: Risk of poverty by highest level of education – higher level (EU-SILC) | 7.6 | 8.1 | N/A |
| Child: Risk of poverty by highest level of parents' education – higher level (EU-SILC) | 13.3 | 12.4 | N/A |

| Chapter 2 – Enrolment and internal efficiency | 2015 | 2019 | 2020 |
|---|---|---|---|
| Gross enrolment for early childhood education (%) | 39.4 | 52.0 | 48.5 |
| Gross enrolment for primary education (%) | 93.6 | 98.3 | 98.8 |
| Gross enrolment for secondary education (%) | 78.3 | 81.8 | 83.7 |
| Net enrolment for early childhood education (%) | N/A | N/A | N/A |
| Net enrolment for primary education (%) | 84.50 | 87.30 | 87.3 |
| Net enrolment for secondary education (%) | 63.40 | 72.30 | 84.4 |
| Gross intake (%) | 94.9 | 100.1 | 103.6 |
| Primary completion rate (%) | 88.1 | 96.5 | 93.0 |
| School life expectancy, primary education | 8.39 | 8.84 | 8.90 |
| School life expectancy, secondary education | 3.12 | 3.34 | 3.35 |
| School life expectancy, total primary and secondary | 11.51 | 12.19 | 12.25 |
| Global access rate | N/A | 68.2 | N/A |
| Repetition rate, primary education | 0.56 | 0.28 | 0.08 |
| Repetition rate, secondary education (three-year) | 1.62 | 0.42 | 0.05 |
| Repetition rate, secondary education (four-year) | 0.29 | 0.18 | 0.03 |
| Repetition rate, secondary education total | 0.37 | 0.22 | 0.04 |
| Transition rate | 97.7 | 96.7 | 95.9 |
| Survival rate: grade 9 | 95.01 (2016) | 96.77 | N/A |
| Survival rate, secondary education (four-year): grade 4 | 92.93 (2016) | 93.83 | N/A |
| Survival rate, secondary education (three-year): grade 3 | 90.67 (2016) | 88.19 | N/A |
| Internal efficiency coefficient, primary | 0.967 (2016) | 0.98 | N/A |
| Internal efficiency coefficient, secondary | 0.942 (2016) | 0.937 | N/A |
| Adjusted net enrolment rate | 93.1 | 97.5 | 98.8 |

| Chapter 3 – Quality of education | 2015 | 2018 |
|---|---|---|
| PISA reading average performance | 427 | 421 |
| PISA mathematics average performance | 418 | 430 |
| PISA science average performance | 411 | 415 |
| PISA reading percentage of students below level 2 | 42 | 44 |
| PISA mathematics percentage of students below level 2 | 51.9 | 45.5 |
| PISA science percentage of students below level 2 | 51 | 48 |

| Chapter 5 – Financing of education | 2015 | 2019 | 2020 |
|---|---|---|---|
| Allocation to education as share of total national budget | 7.60% | 8.20% (2017) | N/A |
| Allocation to pre-primary education as share of total education budget | 11.1% | 14.6% | 15.8% |
| Allocation to primary education as share of total education budget | 49.9% | 48.7% | 52.0% |
| Allocation to secondary education as share of total education budget | 21.9% | 23.5% | 25.0% |
| Allocation to wage costs as share of total education budget | 81.1% | 84.5% | 85.6% |
| Allocation to education as share of GDP | 4.6% | 3.7% | 4.7% |
| Pre-primary education public spending per student, nominal value in € | 942 | 1,045 | 1,212 |
| Pre-primary education public spending per student, real value in €* | 942 | 995 | 1,165 |
| Primary education public spending per student, nominal value in € | 1,022 | 1,136 | 1,204 |
| Primary education public spending per student, real value in €* | 1,022 | 1,072 | 1,148 |
| Secondary education public spending per student, nominal value in € | 1,089 | 1,358 | 1,480 |
| Secondary education public spending per student, real value in €* | 1,089 | 1,282 | 1,411 |

EDUCATION SECTOR ANALYSIS 2015–2020

## 9.3 Annex 3: List of resource persons and stakeholders consulted

| Stakeholder's name and resource persons | Affiliation |
|---|---|
| **UNICEF Regional Office** | |
| Nora Shabani | UNICEF Regional Office |
| Jutaro Sakamoto | UNICEF Regional Office |
| Parmosivea Soobrayan | UNICEF Regional Office |
| Alberto Mussati | UNICEF Regional Office |
| **MINISTRY OF EDUCATION** | |
| Arijana Nikolić Vučinić | Ministry of Education |
| Tatjana Markovic | Ministry of Education |
| Veljko Tomić | Ministry of Education |
| Marash Dukaj | Ministry of Education |
| Milica Pajovic | Ministry of Education |
| Mubera Kurpejović | Ministry of Education |
| Olivera Nikolić | Ministry of Education |
| Tamara Milić | Ministry of Education |
| Danilo Alagić | Ministry of Education |
| Martin Ćalasan | Ministry of Education |
| Slavica Ilinčić | Ministry of Education |
| Vesna Vučurović | Ministry of Education |
| Miroslav Anđelić | Ministry of Education |
| Jelena Konatar | Ministry of Education |
| Marina Matijević | Ministry of Education |
| Helena Djurović | Ministry of Education |
| Ana Radenović | Ministry of Education |
| Ćazim Fetahović | Ministry of Education |
| Mira Radović | Ministry of Education |
| Martin Prenkocaj | Ministry of Education |
| Katarina Milovic | Ministry of Education |
| Milica Vušurović | Ministry of Education |
| Zora Bogićević | Ministry of Education |
| Milica Žižić | Ministry of Education |
| Milica Kadović | Ministarstvo prosvjete |
| Marija Lalatović | Ministarstvo prosvjete |
| Safet Kalač | Ministarstvo prosvjete |
| Neda Ojdanić | Ministarstvo prosvjete |
| **OTHER GOVERNMENTAL INSTITUTIONS** | |
| Radmila Martinovic | Ministry of Finance |
| Tamara Gacevic | Ministry of Finance |
| Divna Paljevic | Examination Centre |
| Marina Radović | Examination Centre |
| Zorica Minić | Examination Centre |
| Staff responsible for education data | Monstat |
| Natasa Gazivoda | Bureau for Education |
| Nevena Čabrilo | Bureau for Education |
| Djordjije Borozan | Montenegrin Academy of Arts and Sciences |
| Dragana Dmitrović | Examination Center) |

| Stakeholder's name and resource persons | Affiliation |
|---|---|
| Duško Rajković | Centre for Vocational Education |
| Radovan Popović | Bureau for Education |
| Anita Marić | Bureau for Education |
| Zoran Lalović | Bureau for Education |
| Radoje Novović | Bureau for Education |
| Sandra Brkanović | Centre for Vocational Education |
| Zorica Minić | Examination Centre |
| Nađa Durković | Institute for Textbooks and Teaching Aids |
| **NON-GOVERNMENTAL ORGANIZATIONS** | |
| Samir Jaha | NGO 'Young Roma' |
| Fana Delija | NGO 'Centre for Roma Initiatives' |
| Marina Vujačić | Association of Youth with Handicap |
| Savo Knežević | NGO 'NARDOS' (parents of children with disabilities) |
| Milisav Korać | NGO 'Naša inicijativa' (parents of children with disabilities) |
| Kristina Mihailović | NGO 'Roditelji' (Parents) |
| Biljana Maslovarić | Pedagogical Centre of Montenegro |
| Nataša Anastasos | NGO 'Naša inicijativa' (parents of children with disabilities) |
| Tatjana Lazić Basić | Association of Defectologists |
| Svetlana Dujović | Zračak nade (parents of children with disabilities) |
| Anđela Miličić | Association of Youth with Disabilities of Montenegro |
| Ana Marković | Montenegrin Employers Federation |
| **REPRESENTATIVE OF EDUCATION INSTITUTIONS** | |
| Tatjana Novović | Faculty of Pedagogy, University of Montenegro |
| Predrag Miranović | Faculty of Natural Sciences and Mathematics, University of Montenegro |
| Tatjana Jovović | Faculty of Philology, University of Montenegro |
| Spomenka Delibašić | University of Montenegro |
| Veselin Mićanović | University of Montenegro |
| **REPRESENTATIVE OF THE PARLIAMENT AND GOVERNMENT OF MONTENEGRO** | |
| Branka Bošnjak | Parliament of Montenegro |
| Božena Jelušić | Parliament of Montenegro |
| Nina Krivokapić | Cabinet of the Deputy Prime Minister, Government of Montenegro |
| Ana Rašović | Cabinet of the Deputy Prime Minister, Government of Montenegro |
| Marko Savić | Government of Montenegro |
| **INTERNATIONAL ORGANIZATIONS** | |
| Nihan Koseleci | European Investment Bank |
| Jadranka Milić | Delegation of the European Union to Montenegro |
| Ivana Vujović | OSCE |
| Alma Mrgan-Slipičević | UNESCO |
| Amila Planinčić | UNESCO |
| Milos Boskovic | CoE |
| Milica Kovačević | CoE |
| Vanja Madžgalj | British Council |
| Armen Čekić | UNOPSS |
| Jelena Miljanić | UNDP |
| Ulrike Damyanovic | European Training Foundation |





| Stakeholder's name and resource persons | Affiliation |
|---|---|
| **BUSINESS SECTOR** | |
| Mladen Perazić | Chamber of Commerce |
| Nina Kecojević | Alicron |
| Nataša Đurđić Begić | Telecommunication company (Telenor) |
| Sonja Rakočević | Retail (Mercator) |
| Stela Bošković | Private bank (Crnogorska Komercijalna Banka) |
| Slađana Đurović | Telecommunication Company (Telekom) |
| Nebojša Đoković | Association of Banks |
| Anita Radulovic | Rotary Club |
| Ljudmila Popović Kavaja | Montenegrin Foreign Investor Council |
| Jovana Popović | Private bank (Lovćen Banka) |
| **PARENTS, TEACHERS, SCHOOL PROFESSIONALS AND STUDENTS** | |
| Nikolaj Knežević | Teachers' Union |
| Slobodan Savović | Teachers' Union |
| Indira Količić | Union of High School Students |
| Nađa Srdić | Union of High School Students |
| Lisa Nimanbegu | Union of High School Students |
| Aleksa Obradović | Union of High School Students |
| Marko Pejović | Primary school |
| Željko Drinčić | Primary school |
| Biljana Mrkaić | Primary school |
| Nada Mitrović | Primary school |
| Sait Šabotić | Primary school |
| Marina Knežević | Primary school |
| Petar Špadijer | Montenegro Teachers' Association |
| Olivera Leković | Montenegro Teachers' Association |
| Danijela Delibašić | Montenegro Teachers' Association |
| Maja Mirković Todorović | Montenegro Teachers' Association |
| Rajka Čepić | Montenegro Teachers' Association |
| Tatjana Lazić Basić | Association of Defectologists |
| Tamara Milić | Association of Psychologists |
| Anđa Backović | Association of Psychologists |
| Dušica Dubljević | Association of Psychologists |
| Zorica Minić | Association of Psychologists |
| Ivana Bjelica | Primary school psychologist |
| Suzana Popović | Primary school |
| Slavica Vujović | Secondary school |
| Gordana Knežević | Preschool institution |
| Zoja Bojanić-Lalović | Secondary school principal |
| Irena Badnjar | Preschool teacher |
| Vesna Medenica | Preschool teacher |
| Jasmina Vuković | Preschool teacher |
| Irena Vasiljević | Primary school principal |
| Dragana Radoman | Primary school teacher |

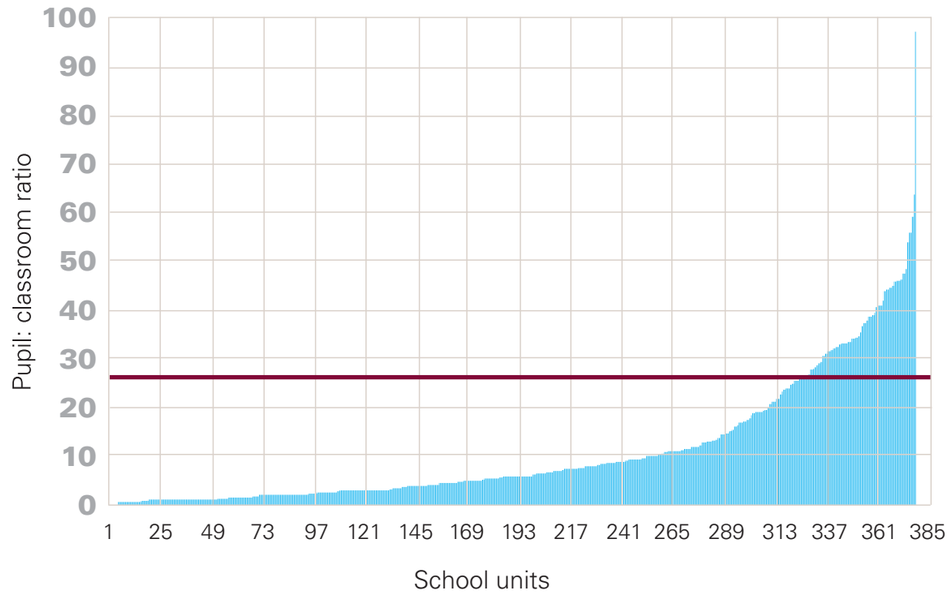
## 9.4 Annex 4: Analysis of primary and secondary school infrastructure

### *Primary education*

**Montenegro faces a serious mismatch in the demand and supply of school infrastructure, where a large number of school units operate either below or above their designed capacity.** According to the National Standards for public education facilities,[233] the maximum group size per teacher in primary education is 28. This maximum number is lowered in case of the participation of a child with a disability within the group. For the analysis on school infrastructure, we have assumed that the same norm can also be applied to the classroom size, e.g. a maximum of 28 students per classroom.

**Based on a sample of the 394 school units for which there is data available (this represents 98 percent of all school units), we can conclude that in 2019, 87 percent of school units were operating at or below the norm of 28 and 13 percent above the norm**. There is a broad variance in the pupil–classroom ratio with extremes at both ends of the spectrum. Only 5 percent of the school units operate within the range of an average group size of 22–28 pupils per classroom, while 83 percent have an average that is below 22 and 12 percent are above 28. Hence, the number of school units operating below their maximum capacity is much larger than that of schools that are encountering a higher demand than their physical capacity.

***Figure 9.1 Pupil–classroom ratios ranked from low to high for each school unit of primary education in 2019***




*Source: Own calculations based on MEIS data*

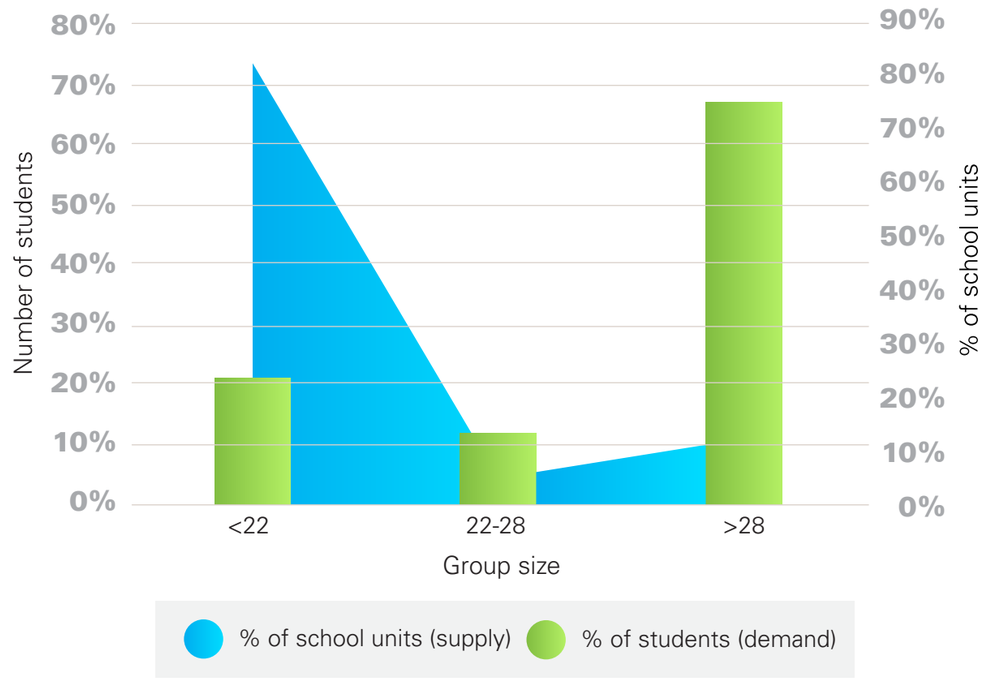
233 Normatives and Standards for acquiring public revenue funds for institutions that implement publicly valid educational programmes, (published in the "Official Gazette of Montenegro" 66, of 19 November 2010, 41/13).





**Yet, two out of three children in Montenegro are in primary school units where physical infrastructure is insufficient.** That is because the 13 percent of school units that operate above the norm of 28 pupils per classroom accommodate 66 percent of all the primary students, whereas the remaining 87 percent of school units house only 33 percent of children. Hence, most children in Montenegro are facing a situation in school where either they are in (very) small classes or classes have become so big that the school opts for organizing classes in double or occasionally even triple shifts. Figure 9.2 shows that only 12 percent of the children are learning in an efficient setting of between 22 and 28 pupils per class, 21 percent are in classes smaller than 22 and 67 percent are in classes bigger than 28.

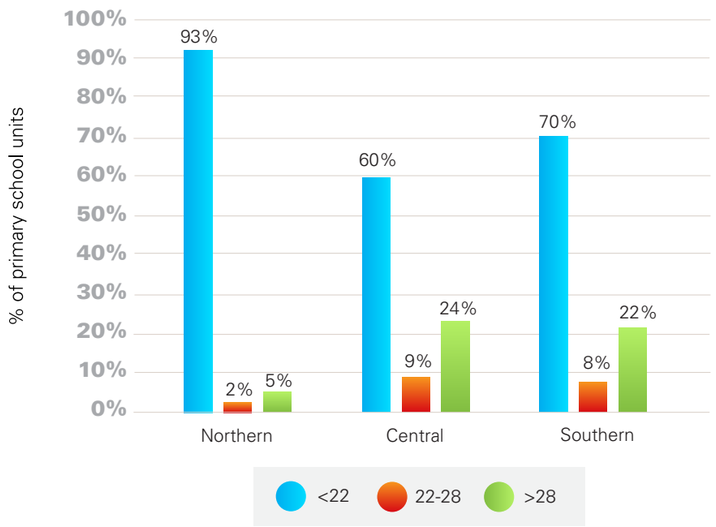
***Figure 9.2 Mismatch between demand and supply for primary education, 2019***




*Source: Own calculations based on MEIS data*

**Also, at the regional level, the majority of primary school units have a surplus in capacity and operate with a group size smaller than 22.** When looking at the regional differences, Figure 9.3 shows that in all three regions the vast majority of school units operate with average classroom sizes of below 22. In the northern region, as many as 93 percent of the school units have excess capacity, while only 5 percent face an excess in demand. In the central and southern regions, 24 percent and 22 percent, respectively, of the school units have a demand surplus, while also in these two regions, 70 percent and 60 percent, respectively, of the school units operate with an average group size of below 22.

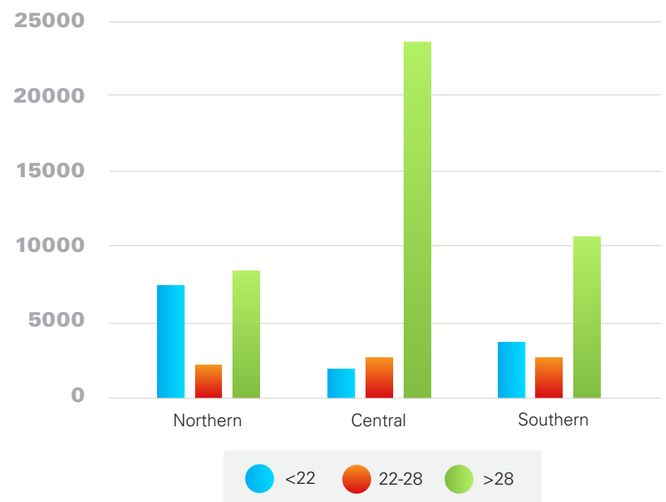
***Figure 9.3 Percentage of school units by average group size and by region, 2019***




*Source: Own calculations based on MEIS data*

**In absolute numbers, most children facing overcrowded classes are based in the central region. However, the southern and northern regions also have the majority of their pupils in school units that operate with an average group size of more than 28.** The situation is most severe in the central region, where 82 percent of the children living in this region are enrolled in school units with, on average, more than 28 pupils per group. But, in absolute numbers the southern and northern regions also have almost two thirds to one half of their children in schools that operate above their capacity. Interestingly, the phenomenon of school units with a low demand is also present throughout the country. Even though the northern region has the highest number of children in small classes, in the southern and central regions there are also schools that are underutilized in terms of their physical capacity.

***Figure 9.4 Number of students by the average group size per school unit and region in 2019***




*Source: Own calculations based on MEIS data*





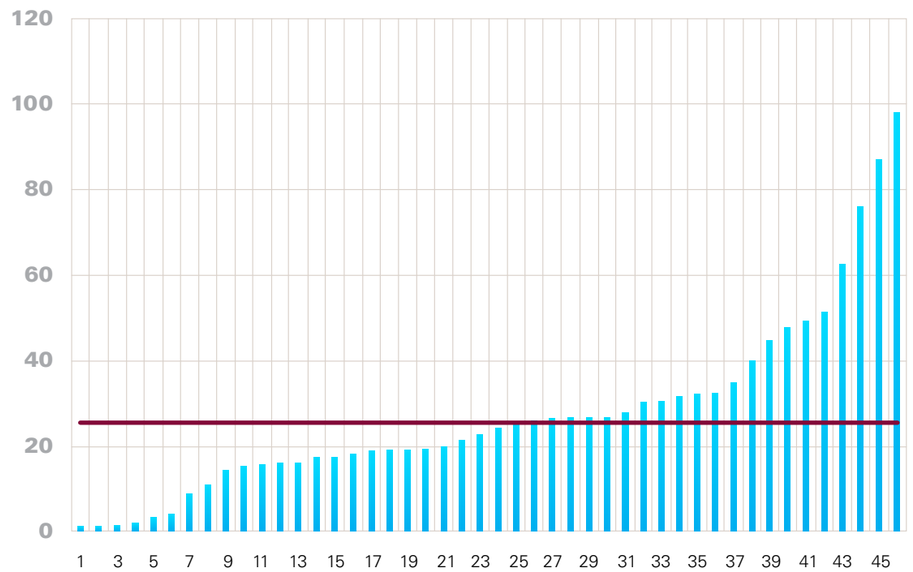
**In conclusion, we can add that in each region a small number of schools accommodate the majority of pupils.** The majority of children in all three regions go to a selected number of primary schools that, as a consequence, operate with a group size above the norm.

### *Secondary education*

**The situation for secondary education is less extreme, although for secondary education there is also a systematic mismatch.** The analysis for secondary education should, however, be treated with slightly more caution, because students in this level of education usually attend several classes depending on the subject area, making measurement and comparison of class sizes more difficult. Also the sample size is much smaller, making the analysis more vulnerable to outliers. The norms for the group size per teacher at secondary education is, however, also 28 (lower for groups that include a student with a disability) and, for reasons of simplicity, the same norm has been applied for reconstructing the utilization of classroom infrastructure at the secondary level.

**Of the 46 secondary schools[234] for which data is available (this represents 88 percent of all schools), we can conclude that 31 schools (67%) are operating at or below the norm of 28, and 15 schools (33%) above it**. Also, for secondary education, there is a broad variance in the pupil–classroom ratio in secondary education, but it is less severe when compared to primary education. Yet, still only 20 percent of the secondary schools are operating within the range of 22–28 (compared to 5 percent for primary education), 22 schools (48%) have an average below 22, and 15 (33%) above 28.

***Figure 9.5 Pupil–classroom ratios ranked from low to high for each secondary school in 2019***

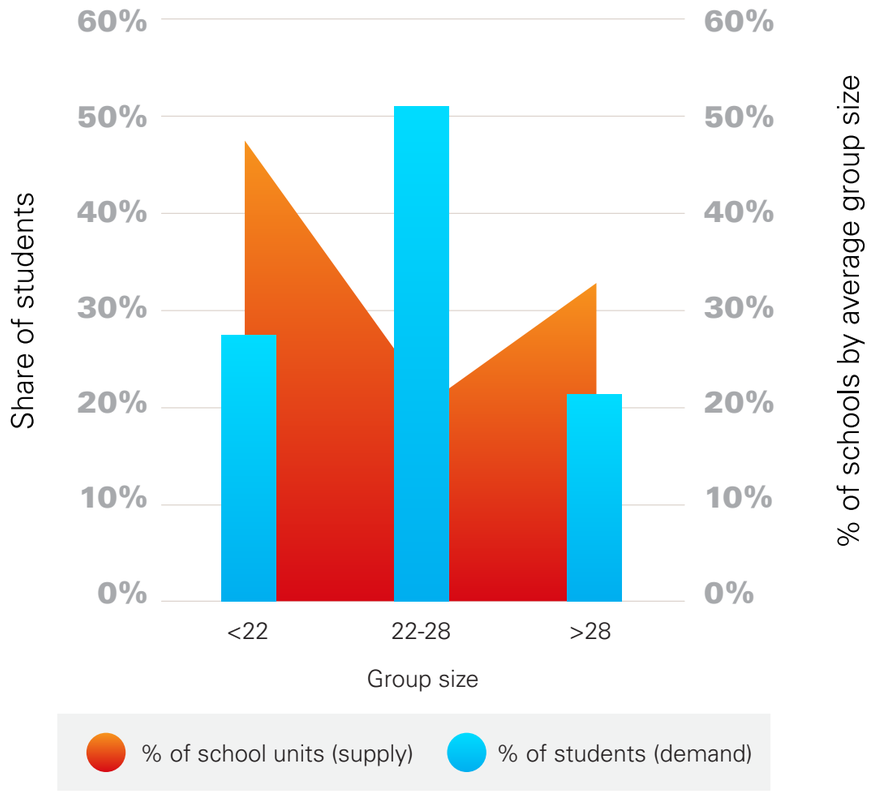



*Source: Own calculations based on MEIS data*

234 This includes one school (Srednja mješovita škola "Bećo Bašić") that has two branches. These are counted as separate schools in the analysis.

**In secondary education, the share of students in very small or big classes is, however, much smaller than in primary education.** About half of the students (51%) are in secondary schools with an average group size of between 22 and 28. About one quarter (27%) are in schools with a relatively small average group size, where demand is lower than supply, and the remaining 22 percent are in schools where demand is higher than supply, resulting in average group sizes of more than 28 students.

***Figure 9.6 Mismatch between demand and supply for primary education, 2019***



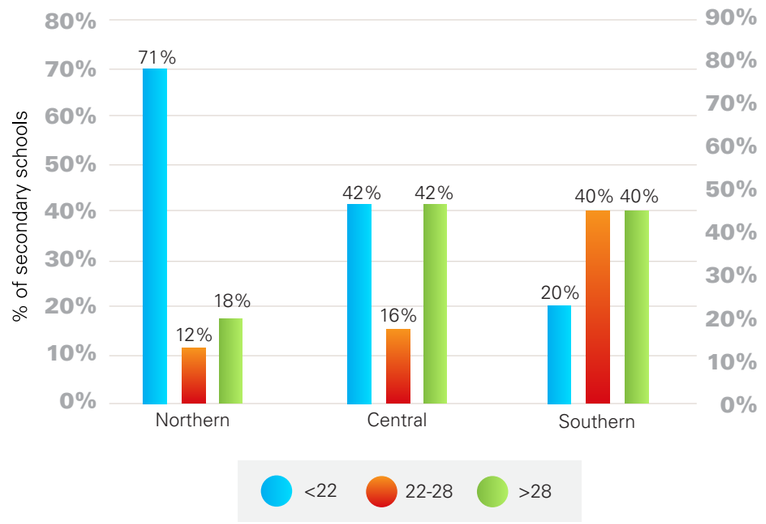

*Source: Own calculations based on MEIS data*

**As with primary education, all regions are experiencing a situation where school units have either a large surplus in their capacity or a large surplus in demand.** The northern region has the most notable surplus in secondary school capacity and operates with a group size smaller than 22 in 71 percent of its school units (12 out of 17). Excess capacity in secondary school units also exists in the central and southern regions in 42 percent (eight out of 19) and 20 percent (two out of 10), respectively, of the secondary schools. All regions also have school units where demand is higher than capacity, but this situation is most prominent in the central and southern region with 42 percent and 40 percent, respectively.





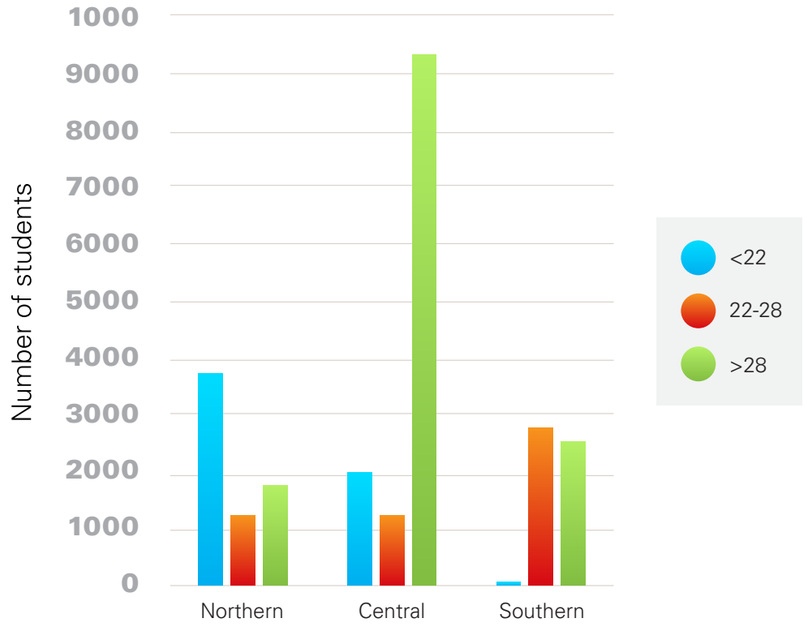
***Figure 9.7 Percentage of secondary schools by average group size and by region, 2019***




*Source: Own calculations based on MEIS data*

**In absolute numbers, most students facing overcrowded classes are based in the central region. But unlike for primary education, this is the only region where the majority of students are in school units with average group sizes above 28.** In the southern region, a small majority are in school units with group sizes between 22 and 28, whereas in the northern region most students are in schools with relatively small group sizes. In the southern region, there are hardly any students in school units with small group sizes.

***Figure 9.8 Number of students by the average group size per school unit and region in 2019***




*Source: Own calculations based on MEIS data*

**An understanding of all the underlying dynamics is needed in order to define the most appropriate policy measures which can help to address the mismatch in supply and demand.** For both primary and secondary education, the analysis shows that certain schools are more popular than others, creating a severe mismatch between supply and demand, which, in turn, results in high inefficiencies. Some of those inefficiently run schools may be being kept open for socio-political rather than economical considerations e.g. to guarantee all children in Montenegro the right to education even in low-populated areas. Other explanatory factors could include the perceived quality of the school or (for secondary education) the curriculum. However, further research is needed to determine the underlying causes.

## 9.5 Annex 5: Additional internal efficiency indicators

### *Access rate to grade i*

In order to show the level of access to primary and secondary school in Montenegro, access rates have been calculated for each grade in primary and secondary school. The access rate is calculated as the ratio between the number of non-repeaters in a given grade, regardless of age, and the population of official school age for that grade.[235]

In the observed period from 2015 to 2019, the access rate for all grades in primary school increased. Access rates are higher in the lower grades (first to fourth grades) than in the higher ones (fifth to ninth grades). The highest access rate was recorded for the fourth grade (107.2%). In 2019, access rates for the first four grades were above 100%.

***Table 9.1 Access rate to primary and secondary education***

| Level | Grade | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|
| Primary education | 1 | 94.9 | 106.6 | 106.8 | 101.4 | 100.1 |
| | 2 | 94.1 | 94.7 | 106.9 | 106.4 | 101.0 |
| | 3 | 95.8 | 94.0 | 95.1 | 105.7 | 106.1 |
| | 4 | 95.1 | 95.5 | 93.8 | 94.5 | 107.2 |
| | 5 | 97.3 | 94.5 | 95.6 | 93.5 | 93.1 |
| | 6 | 91.0 | 96.9 | 94.3 | 95.4 | 93.3 |
| | 7 | 89.8 | 90.2 | 96.6 | 93.9 | 94.7 |
| | 8 | 92.8 | 89.3 | 89.6 | 95.9 | 93.3 |
| | 9 | 88.1 | 92.0 | 88.8 | 89.2 | 95.5 |
| Four-year secondary education | 1 | 73.1 | 79.0 | 81.3 | 67.8 | 66.6 |
| | 2 | 72.7 | 71.3 | 77.0 | 78.9 | 66.7 |
| | 3 | 69.3 | 70.6 | 69.1 | 74.7 | 76.7 |
| | 4 | 78.8 | 68.4 | 69.6 | 67.7 | 73.2 |
| Three-year secondary education | 1 | 6.4 | 7.0 | 8.5 | 18.4 | 19.5 |
| | 2 | 5.2 | 5.7 | 6.4 | 7.8 | 17.1 |
| | 3 | 6.4 | 5.0 | 5.3 | 6.1 | 7.4 |

*Source: Calculations based on MEIS and MONSTAT data*

235 Ibid, 78.





On the other side, access rates for secondary education are lower, especially for the three-year secondary education, compared to those for primary education. During the period 2015–2019, the access rates for the four-year programmes of secondary education decreased due to reduced enrolment of students in these educational programmes. The only grade that recorded an increase in the access rate was the third grade (growth from 69.3 percent in 2015 to 76.7 percent in 2019).

Due to the increased enrolment in three-year secondary schools and the introduction of a dual education system, access rates increased in the observed period. This effect can be seen in the difference between the access rate for the third grade (7.4%), where students of this generation were not included in the dual education programme, and in the access rates for the second and first grades in 2019 (17.1 percent and 19.5 percent, respectively) which are theoretically included in the system of dual education.

### *Effective promotion rate to grade i*

As was previously elaborated, the school repetition rate in Montenegro is very small in the analysed period 2015–2019 and is almost non-existent thereafter. This is because the education policies are aimed not only at ensuring access to education, but also at ensuring efficient learning of children/students within the system. A policy of almost automatic promotion exists in Montenegro to avoid redundancy in the education system and encourage students to progress through their schooling.

The effective promotion rate to grade i is calculated in order to analyse the flows of pupils from grade to grade.

This is calculated as the ratio between the number of non-repeaters enrolled in the given grade and for the given year, and the total enrolment of non-repeaters in the previous grade and previous year.[236] During the period 2015–2019, high effective promotion rates in primary school were recorded (for almost all grades in all years these were above 99 percent), which indicates a high efficiency of the educational system. In general, lower promotion is observed in higher grades (from the fifth to the final grades) in comparison to the lower grades.

***Table 9.2 Effective promotion rate to grades for primary and secondary education***

| | Grade | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Primary education | *1* | - | - | - | - |
| | 2 | 99.78 | 100.30 | 99.64 | 99.67 |
| | 3 | 99.90 | 100.34 | 98.89 | 99.69 |
| | 4 | 99.75 | 99.81 | 99.38 | 101.36 |
| | 5 | 99.30 | 100.04 | 99.63 | 98.54 |
| | 6 | 99.62 | 99.83 | 99.84 | 99.79 |
| | 7 | 99.17 | 99.66 | 99.55 | 99.29 |
| | 8 | 99.45 | 99.36 | 99.32 | 99.42 |
| | 9 | 99.10 | 99.44 | 99.47 | 99.56 |
| Four-year secondary education | *1* | - | - | - | - |
| | 2 | 97.6 | 97.4 | 97.0 | 98.4 |
| | 3 | 97.1 | 96.9 | 97.0 | 97.2 |
| | 4 | 98.6 | 98.6 | 97.9 | 98.0 |
| Three-year secondary education | *1* | - | - | - | - |
| | 2 | 89.2 | 91.6 | 91.6 | 92.8 |
| | 3 | 95.0 | 92.6 | 94.0 | 94.6 |

*Source: Calculations based on MEIS and Monstat data*

236 UNICEF, Education Sector Analysis Methodological Guidelines, 81.

On the other hand, lower promotion is recorded in secondary education compared to primary education. During the observed period, the effective promotion rates to the grades of the four-year secondary programmes slightly varied in an interval from 96.9 percent (third grade, 2017) to 98.6 percent (fourth grade, 2016). Lower promotion has been observed for the three-year programmes in comparison to four-year secondary education. However, increases in promotion were recorded for the second grade during the analysed period.

## 9.6 Annex 6: Student support measures

| Measure | Eligibility | Amount | No of students | Comments |
|---|---|---|---|---|
| **Stipends for best students (higher education)** | High academic performance<br>(grade 9 or above in the previous year) | €86 a month in 10 monthly instalments | 300 annually total | Only from the second year of studies onwards |
| **Stipends for best pupils (primary and secondary education)** | High academic performance in previous year | €57 a month in 10 monthly instalments | 200 annually<br>total | Only from the second grade of primary and secondary school;<br>No obligation to return. |
| **Stipends for VET students** | For three-year schools that are preparing for professions where there is a deficit | €70 | 723 (2020/21)<br>661 (2019/20) | |
| **Loans for students (higher education)** | Performance<br>Slot reserved for students from a poor background[237]<br>SEN students | €35/€44/€53 depending on the year of study and average grade<br>(25% more than the fee students pay for dormitory and food) | 3,500 annually | Obligation to return the amount; students with highest grades and SEN students exempted from repayment. |
| **Dormitories** | Academic performance<br>5 percent of places reserved for SEN students, Roma and students from poverty. | 70–80% subsidized, students pay cca. €30 for accommodation and food. | Placement capacities not overbooked, a shortage of 20% only in Podgorica and Kotor. | Six dormitories |
| **Commuting costs** | All pupils and students commuting a distance of 5 km or more to school | Refund for monthly ticket (40% for primary, 20% for secondary, 50% for poor students) | – | Organized through schools, subsidized by ministry. |
| **Free-of-charge textbooks** | Free-of-charge textbooks are available for students in primary and lower-secondary schools (grades 1–9) starting from the 2021/22 academic year. Prior to this regulation, only students without parental care, recipients of financial aid, SEN students, students accommodated in social and child protection institutions, students in family accommodation, and the RE population were offered free textbooks. | Costs of obligatory textbooks | – | Organized through schools, paid by ministry |

237 Recipients of financial aid based on poverty indicators.





## 9.7 Annex 7: Description of recruitment procedures of education staff

Pursuant to the General Law on Education and Upbringing, an employment relationship may be established by a teacher, who, in addition to the general conditions prescribed by the Labour Law, has: the appropriate level of education and area (profile) of education; Montenegrin citizenship; passed the professional exam for working in educational institutions, i.e. licence. A teacher in a public institution is employed on the basis of a public competition, in accordance with the law. The competition is announced by the principal of the institution. Teachers in institutions or special departments of institutions with instruction in the language of the members of minority peoples and other minority national communities must, in addition to the conditions prescribed by law, have an active knowledge of the language and script of that minority and the Montenegrin language. The decision on hiring teachers is made by the principal of the institution, at the proposal of the commission appointed by the principal of the institution, in accordance with the statute of the institution. A special condition for hiring teachers is probationary work. The duration of the probationary period, the manner of conducting the probationary period and evaluating the results of the probationary period are determined by the Rulebook on the manner of conducting the probationary period of teachers. A teacher who during the probationary period does not satisfy the requirements shall have their employment terminated upon the expiration of the term determined by the probationary contract. An educational institution may announce a competition for the employment of teachers if: there is no possibility to transfer a teacher from another public institution from the list of employees on a indefinite-period contract; it has a systematized and approved job; it has proof from the ministry of the provided financial resources.

A trainee teacher is a person who for the first time establishes an employment relationship in an institution for the purpose of training for independent performance of work in the appropriate level of education. The internship of teachers with a qualification VII sub-level 1 of the National Qualifications Framework lasts one year, and the internship of persons who have qualification IV sub-level 1 of the National Qualifications Framework lasts six months. The intern's employment is terminated after the end of the internship. The internship is performed according to the established programme of educational work in the institution, under the direct supervision of an authorized teacher (mentor), who has, as a rule, more than three years of work experience in teaching and at least the same level of education as the intern. The mentor is appointed by the principal of the institution, at the proposal of the professional staff. The jobs and tasks of the mentor are determined by the Rulebook on the jobs and tasks of the mentor.

The content, programme, method of monitoring and evaluation of internships are regulated in more detail by the Rulebook on internships. The training of interns is carried out according to the programme and in a way that ensures that the trainee teacher, through practical work and under the direct supervision of a mentor, is trained to independently perform tasks in the degree of their education in educational institutions. The internship in the institution is performed under the direct supervision of a mentor. After completion of the internship, the mentor prepares a report that contains a descriptive assessment and explanation of the intern's ability to perform tasks independently. The mentor's report is submitted to the commission for taking the professional exam. After completing the internship, the teacher takes the professional exam. A teacher who has not completed an internship has the right to take the professional exam, and after graduating in the prescribed level and field (profile) of education determined

by law and bylaws, they have at least one year of work experience in teaching in an institution or higher education institution. The professional exam is taken before the competent commission. The content, conditions, manner and place of taking the professional exam, as well as the education and composition of the commission and the amount of costs are regulated in more detail by the Rulebook on taking the professional exam for teachers.

The duties of teachers, principals and assistant principals may be performed by a person who, in addition to the conditions prescribed by the Labour Law and the General Law on Education and Upbringing, has a work permit or licence. A licence is a public document that proves the required level of general and professional competencies of teachers, principals and assistant principals. The licence is issued after passing the professional exam for work in educational institutions, valid for a period of five years. The licence must be renewed every five years (relicensing), in accordance with the teachers' professional development programme. A teacher, principal, or assistant principal who does not have a licence or has not renewed their licence is not entitled to work in the institution.