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Implemented by

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

Technical and Vocational Education and Training (TVET) in Bosnia and Herzegovina in Numbers

Imprint

Published by the

Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Registered offices

Bonn and Eschborn, Germany

Project “TVET in Bosnia and Herzegovina”

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As at

April 2020

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GIZ is responsible for the content of this publication.

On behalf of the

German Federal Ministry for Economic Cooperation and Development (BMZ) and the Swiss Agency for the Development and Cooperation SDC.



1 The education system in Bosnia and Herzegovina

This overview provides key information about the education system in Bosnia and Herzegovina (BiH), with special emphasis on technical and vocational education and training (TVET)¹, for the period 2016-2019, providing concrete statistical data and facts. Statistical data given in this overview are taken from the *Agency for Statistics of Bosnia and Herzegovina (BHAS)*^{2,3} publications and the *Agency for Preschool, Primary and Secondary School Education of BiH (APOSOS)* web page.⁴

¹ In the education system in BiH, vocational and technical (secondary) schools are considered TVET schools, whereby the vocational schools last 3 years and are common in the field of skilled crafts and trades. The technical schools last 4 years and provide occupational training on the level of technicians and a university entrance qualification. In some administration units art schools are also considered TVET schools.

² Agency for Statistics of Bosnia and Herzegovina [Internet]. Available on <http://www.bhas.ba/index.php?lang=en>

³ Agency for Statistics of Bosnia and Herzegovina. *Demography and social statistics, Education statistics*. [Internet]. Available on http://bhas.gov.ba/data/Publikacije/Saopštenja/2019/EDU_01_2018_Y2_0_BS.pdf

⁴ Agency for Preschool, Primary and Secondary education [Internet]. Available on <http://www.aposo.gov.ba>



I Organization of the education system in Bosnia and Herzegovina

The organization of education in BiH is based on the BiH constitutional system. The constitution of BiH defines Bosnia and Herzegovina as a state consisting of two entities: *Federation of Bosnia and Herzegovina (FBiH)* and *Republika Srpska (RS)*, and a separate administrative unit, *Brčko District of BiH (BD BiH)*.

The entity of the Federation of BiH is further divided into ten cantons.⁵ According to the constitutional system, the sector of education falls under the competence of the entity Republika Srpska, ten cantons in the Federation of BiH and Brčko District of BiH. The result is twelve systems of education in BiH.

Each of the aforementioned administrations has its laws on education, the budget for education, a ministry of education with the power to set education policy, and all other rights and obligations arising from the mandate of the responsible education authority, charged with organizing and implementing education within their scopes of authority. Accordingly, most responsibilities in the TVET sector are at the level of the twelve mentioned units.

Fragmentation and the nature of decentralization in the education system perpetuate inefficiencies and inequities across levels of education.⁶

⁵ Zenica-Doboj Canton, Una-Sana Canton, Central Bosnia Canton, Posavina Canton, Tuzla Canton, Bosnian-Podrinje Canton, Herzegovina-Neretva Canton, West-Herzegovina Canton, Canton Sarajevo, Canton 10.

⁶ The World Bank (2019). *Review of Efficiency of Services in Pre-University Education, Phase I: Stocktaking* [Internet]. Available on <http://documents.worldbank.org/curated/en/121621571233909890/pdf/Bosnia-and-Herzegovina-Review-of-Efficiency-of-Services-in-Pre-University-Education-Phase-I-Stocktaking.pdf>

II Levels of the education system and types of schools

The education system in BiH is structured into three levels:

- Primary education – elementary/primary schools (*osnovne škole*)
- Secondary education – secondary schools (*srednje škole*)
- Higher education – universities, faculties, academies (*visoko obrazovanje*)

Primary education lasts for nine years and it is mandatory. Students enrol in primary education at the age of about 6 years.

Secondary education is provided in several types of secondary schools:

- Vocational schools (*stručne škole*),
- Technical schools (*tehničke škole*),
- Grammar schools (*gimnazije*),
- Art schools (*umjetničke škole*),
- Religious schools (*vjerske škole*) and
- Special schools (*srednje škole za djecu sa posebnim potrebama*).

Students graduating from *technical, grammar, art, religious and special schools*, which last for four years, can enrol in a university or academy (higher education) by passing the qualification examination

given by the higher education institution.

Vocational schools last for three years and include a period of practical instruction. This kind of schools should help students to pursue a profession. The graduates of this education path go directly to the labour market. Completion of this education path does not allow graduates to start university.

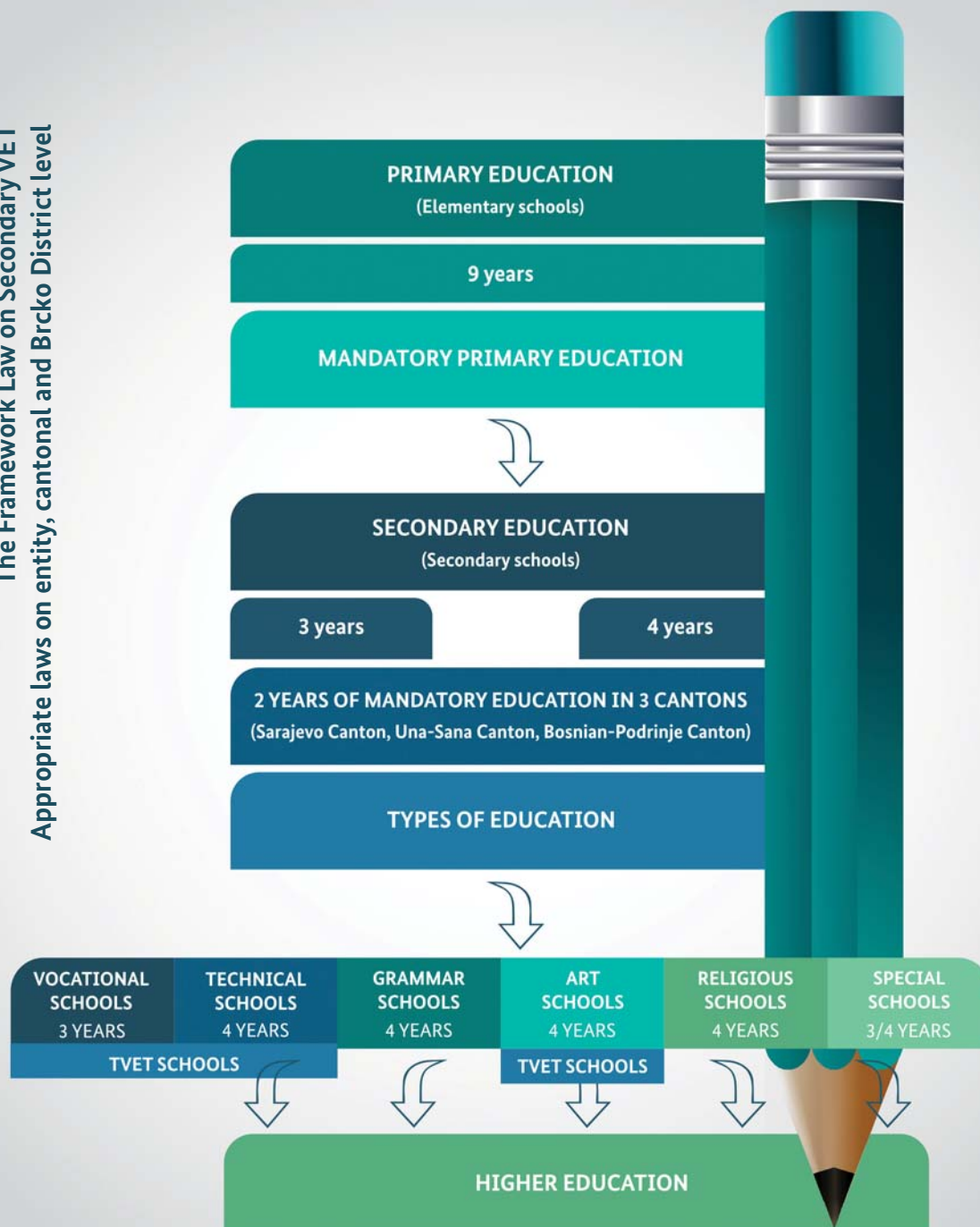
Secondary education is not mandatory in most parts of BiH. *Compulsory secondary education* was introduced in three cantons of the Federation of BiH. According to the report published on the web page of the Federation Ministry of Education and Science⁷, the law stipulates mandatory secondary education in the following cantons:

- Sarajevo,
- Bosnian-Podrinje and
- Una-Sana.

Other cantons intend to do the same after acquiring sufficient capacity and creating real opportunities for fulfilling this demanding task. The experience from cantons that introduced compulsory secondary education shows that the laws remain non-constructive in practice if they are not accompanied by quality bylaws and regulations, plans and programs – curricula, as well as ensured financial resources in the budgets.

⁷ Ministry of Education and Science of FBiH (2015). *Information on the possibility of introducing compulsory secondary education with a two-year duration in the Federation of BiH*. [Internet]. Available on http://fmon.gov.ba/Upload/Dokumenti/fc100001-1919-4595-a4529e607cae3e1e_Informacija%20o%20mogućnosti%20uvođenja%20obaveznog%20srednjoškolskog%20obrazovanja%20sa%20dvogodišnjim%20trajanjem%20u%20FBiH.pdf.

The Framework Law on Secondary VET
Appropriate laws on entity, cantonal and Brčko District level



The Framework Law on Primary and Secondary Education

Table 1 Education system in Bosnia and Herzegovina

III Legal basis

*The Framework Law on Primary and Secondary Education*⁸ was adopted at the state level in 2003. According to Article 1, the law governs the principles of preschool, primary and secondary education, and upbringing, education of adults and the establishment and operation of institutions for the provision of services in education in Bosnia and Herzegovina.

In terms of technical and vocational education and training (TVET) the primary law at the state level for this area is the *Framework Law on Vocational Education and Training*⁹ adopted in 2008. This law also foresees establishment of tripartite

advisory councils which include representatives of all stakeholders, to link TVET with the labour market needs.

According to Article 24, all laws in the entity of Republika Srpska, the cantons in the Federation of BiH and the Brčko District of BiH, as well as other relevant regulations related to the organization of secondary vocational education and training should be harmonized with the provisions of the law, at the latest within 6 months after their entry into force.

The harmonization dynamic was not the same in all parts of BiH. In some administrative units, the harmonization process is still ongoing.

⁸ *The Framework Law on Primary and Secondary education* ("Official Gazette of BiH, No. 18/03"), adopted in 2003, is available in German on the web page: https://www.bq-portal.de/sites/default/files/legal_basis/files/rahmengesetz_ueber_die_grund_und_mittlere_ausbildung_de.pdf and in English on the following web page: http://www.erisee.org/downloads/library_bih/Framework%20Law%20on%20Primary%20and%20Secondary%20Educ_engl.pdf.

⁹ *The Framework Law on Vocational Education and Training* ("Official Gazette No 63/08, July 2008"), adopted is available in German on the web page: https://www.bq-portal.de/sites/default/files/legal_basis/files/rahmengesetz_ueber_die_mittlere_berufliche_aus_und_fortbildung_de.pdf and in English on the web page: http://www.erisee.org/downloads/library_bih/Framework%20Law%20on%20Primary%20and%20Secondary%20Educ_engl.pdf.



	Entity/Canton/BD BiH	Date of adoption of the law	Official Gazette, No. and date	Date of entering into force
1	Republika Srpska	6.11.2009	Official Gazette of Republika Srpska, No. 106/09, 8.11.2009	16.11.2009
2	Zenica-Doboj Canton	7.12.2009	Official Gazette of Zenica-Doboj Canton, No. 19/09, 31.12.2009	8.1.2010
3	Department for education of the Brčko District Government	27.3.2008	Official Gazette of Brčko District of BiH, No. 10/08	24.4.2008
4	Una-Sana Canton	4.7.2012	Official Gazette of Una-Sana Canton, No. 17/12	3.9.2012
5	Central Bosnia Canton	Draft law adopted on 21.8.2013	-	-
6	Posavina Canton	Law on Amendments to the Law on Secondary Education 28.6.2011	Official Gazette of the Posavina Canton, No. 4/11	-
7	Tuzla Canton	22.12.2012	Official Gazette of Tuzla Canton, No. 17/11	January 2013
8	Bosnian-Podrinje Canton	1.7.2011	Official Gazette of Bosnian-Podrinje Canton	12.7.2012
9	Herzegovina-Neretva Canton	The law is being drafted	-	-
10	West-Herzegovina Canton	22.12.2013	Official Gazette of West-Herzegovina Canton, No. 22/13	January 2014
11	Canton Sarajevo	1.9.2010	Official Gazette of Canton Sarajevo, No. 23/10	2.9.2010
		The new law adopted: 10.5.2017	Official Gazette of Canton Sarajevo, No. 23/17	15.6.2017
12	Canton 10	Law in form of a draft	-	-

Table 2 Review of the dynamics of secondary education law adoption/harmonization in Bosnia and Herzegovina



IV TVET Reform & Statistics

Over the past 20 years, a lot of education reforms have been done in Bosnia and Herzegovina mostly focused on higher education (HE) and TVET.

The TVET reform in BiH started in 1998 with the adoption of the *Green Paper VET Policy and Strategy*. It included a list of recommendations for TVET reform in light of harmonization with EU developments in the TVET field.¹⁰ Following the adoption of this document, several other measures have been undertaken to improve the TVET system in BiH.¹¹ Although the TVET reform in BiH started in 1998 and many efforts were done to align the TVET system with the EU countries, according to statistical data, *the BiH TVET system is among the weakest in the Balkans, lagging behind all Balkan countries.*¹²

The most important steps in terms of legislation and strategies for a TVET reform included adoption of:

- the Framework Law on VET in Bosnia and Herzegovina in 2008;
- the Strategy for VET Development in Bosnia and Herzegovina in 2007 for the period of 2007–13;
- the Law on Establishment of the Agency for Preprimary, Primary and Secondary Education in 2007.

TVET reform made a significant result in 2018 and 2019. New laws and regulations were adopted or adopting procedures were initiated.

The competent authority of Republika Srpska adopted a new *Law on Secondary Education (Official Gazette of Republika Srpska, No. 41/18)* which introduced for the first-time TVET with elements of dual education in this entity. The Ministry of Education and Culture of Republika Srpska adopted in June 2019 *Regulation*

on The Manner of Education of Students at the Employer (Official Gazette of Republika Srpska, No. 65/19), which prescribes all issues of importance for the in-company training of TVET students.

Furthermore, new TVET regulations have been adopted in some of the cantons of the entity of the Federation of Bosnia and Herzegovina. Educational authorities in *Bosnian-Podrinje Canton adopted Regulation on the Organization and Implementation of Practical Training in Schools of Secondary Vocational Education and at Business Entities (Official Gazette of Bosnian-Podrinje Canton, No. 9/18)*. This regulation is the first normative framework in Bosnia and Herzegovina which regulates in detail the in-company training of TVET students and participation of companies in secondary vocational education in general.

The competent educational authority of the Canton of Sarajevo has initiated the procedure of adopting the Law on Dual Education in 2018. Furthermore, *the Regulation on Performing Holiday Internship and the Regulation on Organization and Implementation of Practical Training and Laboratory Work in Secondary Schools in the Canton of Sarajevo* entered into force in 2018 and 2020.

Regulation on Conditions for Conducting Practical Training Outside the School (Official Gazette of Zenica-Doboj Canton, No. 3/19) which foresees the possibility of in-company training of TVET students has been adopted in March 2019 in the Zenica-Doboj Canton.

Even though some progress in TVET reform has been made, the TVET system in Bosnia and Herzegovina needs to be further improved and a lot of measures need to be undertaken. Shortcomings in policy planning and implementation, inadequate financing,

the insufficient linkage between the education system(s) and the labour market, old and outdated curricula, poor image of TVET professions and schools, are just some of the existing barriers in the TVET system in BiH. All these shortcomings affect the TVET system in BiH and contribute to the fact that the BiH TVET system is among the weakest in the region, whereby the main point seems to be that TVET programs in BiH are not matching with labour market needs.

Furthermore, several observations were noted about education and employment sectors.

The employment sector in BiH is characterized by unemployment, which is predominantly of a long-term nature or longer than one year (82% of the total number of job seekers in 2015, *BHAS*¹³ and 76% in 2019¹⁴). Most of the unemployed population have finished secondary schools (73.4% in April 2017¹⁵, 71.8% in April 2018¹⁶ and 60.48% in November 2019¹⁷) which means that active labour market measures should be improved and coupled with continuous TVET development and reform in terms of improving competencies, skills, and knowledge needed in the labour market.

This gets even higher importance if the *BHAS* data are considered that most students enrol in technical and vocational schools (almost 73% in the school year 2016/2017, 73.11% in 2017/2018 and 74.05% in

2018/2019).

Secondary education and graduates from secondary schools have a very important role in the BiH economy and labour market since according to the *Labour Force Survey 2019*, 68% of employed persons and 74.1 % of the unemployed persons are having finished secondary education (including TVET).¹⁸ Furthermore, in the past three years labour force surveys showed that the percentage of employed persons/unemployed persons with secondary education was always above 60%/70%.

Accordingly, the role of secondary education – especially TVET schools – is of great significance as TVET students represent the largest number of young people in secondary schools. During the past 10 years, this number ranged always between 70% and 74%.

TVET is a complex field that is expected to link education and education policies with economic and labour market policies. The TVET system is expected to incorporate both current and future skills and key competencies based on the demands of the local economy of specific regions in a country, as well as the economy in the country as a whole. Considering the importance of TVET education in a country development, it is necessary to further invest in the improvement of the system quality, supported by education policies, which consider the key role of TVET in the economic growth of the country.

¹⁰ European Training Foundation (2013). *Mapping of VET educational policies and practices for social inclusion and social cohesion in the Western Balkans, Turkey and Israel, Country report: Bosnia and Herzegovina*. [Internet].

Available on [http://www.etf.europa.eu/webatt.nsf/0/ECF3D846C3DE3EFFC1257C210032F6A3/\\$file/BOSNIA%20-%20FINAL%20Report.pdf](http://www.etf.europa.eu/webatt.nsf/0/ECF3D846C3DE3EFFC1257C210032F6A3/$file/BOSNIA%20-%20FINAL%20Report.pdf)

¹¹ The *Green Paper VET Policy and Strategy* were followed by the *White Paper VET Policy and Strategy*, launched in 2001. The documents that followed in succeeding years, while often more detailed, did not diverge significantly from the recommendations. Some of the most important improvements during the past years were: a new *Nomenclature of Occupations – the new Classification of Occupations* (nomenclature) composed of 13 families with a total of 100 occupations which was adopted in 2004 (available in the local language on the web page:

<http://fzzz.ba/publikacije1/Vodic%20kroz%20zanimanja.pdf> and in German: https://www.bq-porta.de/sites/default/files/legal_basis/files/berufsfamilien_bih.pdf),

Strategy of Vocational Education and Training for the Period 2007-13 has been adopted, *VET Framework Law* (Official Gazette No. 63/08, July 2008), and “*Baseline of the Qualifications Framework in BiH*” (adopted by the Council of Ministers of BiH on the 24th March 2011). There is no current TVET strategy since the previous one expired. So far, most strategies, laws, and bylaws relate to the qualifications’ framework, developing curricula and introducing advisory councils in vocational schools.

¹² European Training Foundation (2013). *Mapping of VET educational policies and practices for social inclusion and social cohesion in the Western Balkans, Turkey and Israel, Country report: Bosnia and Herzegovina*. [Internet]. Available on [http://www.etf.europa.eu/webatt.nsf/0/ECF3D846C3DE3EFFC1257C210032F6A3/\\$file/BOSNIA%20-%20FINAL%20Report.pdf](http://www.etf.europa.eu/webatt.nsf/0/ECF3D846C3DE3EFFC1257C210032F6A3/$file/BOSNIA%20-%20FINAL%20Report.pdf)

¹³ <http://akademac.ba/sazetak-izvjestaja-torino-procesa-2016-2017-za-bosnu-i-hercegovinu/>

¹⁴ Agency for Statistics of Bosnia and Herzegovina (2019). *Labour Force Survey 2019*. [Internet]. Available on http://bhas.gov.ba/data/Publikacije/Bilteni/2019/LAB_00_2019_Y1_0_BS.pdf

¹⁵ Agency for Statistics of Bosnia and Herzegovina (2017). *Labour Force Survey 2017*. [Internet]. Available on http://www.bhas.ba/saopstenja/2017/ARS_2017G12_001_01_bos.pdf

¹⁶ Agency for Statistics of Bosnia and Herzegovina (2018). *Labour Force Survey 2018*. [Internet]. Available on http://bhas.gov.ba/data/Publikacije/Bilteni/2018/LAB_00_2018_Y1_0_BS.pdf

¹⁷ Agency for Statistics of Bosnia and Herzegovina (2018). *Registered Unemployment November 2019*. [Internet]. Available on http://bhas.gov.ba/data/Publikacije/Saopstenja/2020/LAB_03_2019_11_0_BS.pdf

¹⁸ Agency for Statistics of Bosnia and Herzegovina (2019). *Labour Force Survey 2019*. [Internet]. Available on http://bhas.gov.ba/data/Publikacije/Bilteni/2019/LAB_00_2019_Y1_0_BS.pdf



2

Statistical fact sheets

Facts about school years 2016/17-2018/19			
ELEMENTARY SCHOOLS			
	2016/17	2017/18	2018/19
Number of students	287 694 (1.3% less than previous school year)	282 614 (1.8% less than previous school year)	280 018 (1.0% less than previous school year)
Number of schools	1840	1817 (23 schools were closed)	1803 (14 schools were closed)
Number of teachers	23 811	23 811	24 175
SECONDARY SCHOOLS			
	2016/17	2017/18	2018/19
Number of students	126 965 (4.7% less than previous school year)	124 368 (1.9% less than previous school year)	117 475 (5.4% less than previous school year)
Number of schools	311	311	311
Number of teachers	12 607	12 615	12 551
% in vocational schools	18.50%	18.20%	18.97%
% in technical schools	54.40%	54.96%	55.08%
% in grammar schools	24.10%	23.79%	22.75%
% in religious schools	1.8%	1.86%	1.91%
% in art schools	0.90%	0.93%	0.99%
% in special schools	0.30%	0.31%	0.30%

Table 3 Statistical fact sheets, school years 2016/17-2018/19



Secondary education in the school years 2016/17 - 2018/19

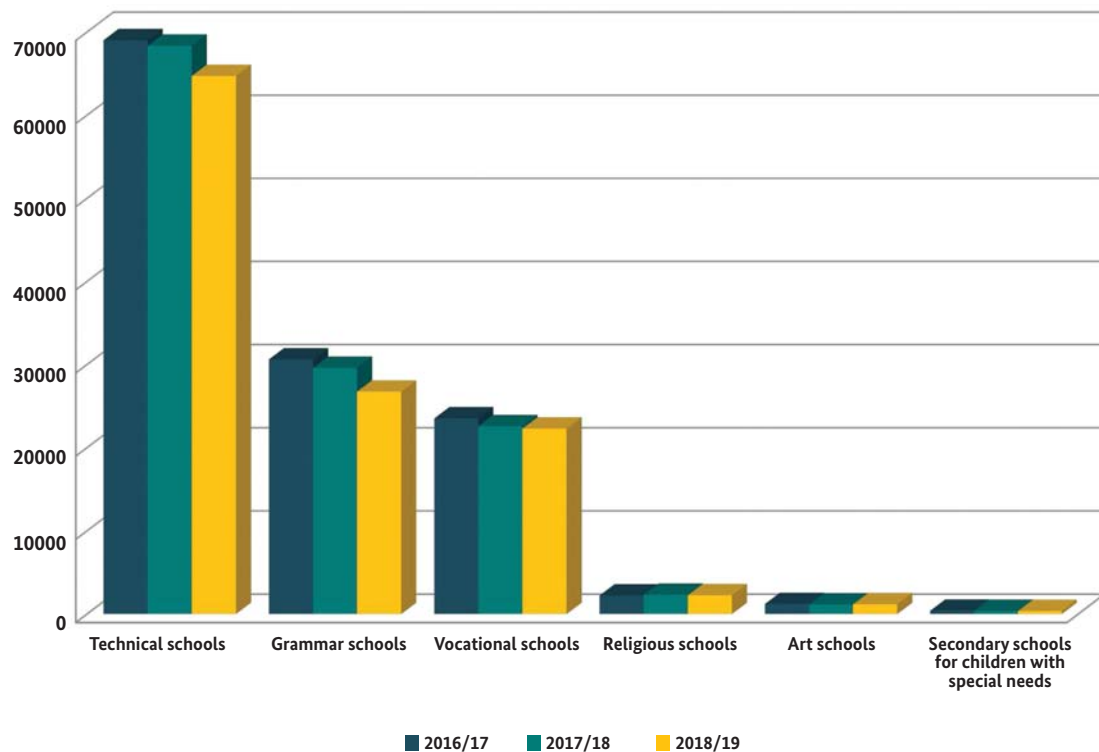


Illustration 1 The numbers of students enrolled in secondary education in the school years 2016/17, 2017/18 and 2018/19 show that the most students choose to enrol in technical schools, which cannot be said for the vocational schools, which are in a third place.

Number of elementary and secondary school students in Bosnia and Herzegovina 2001/02 - 2018/19

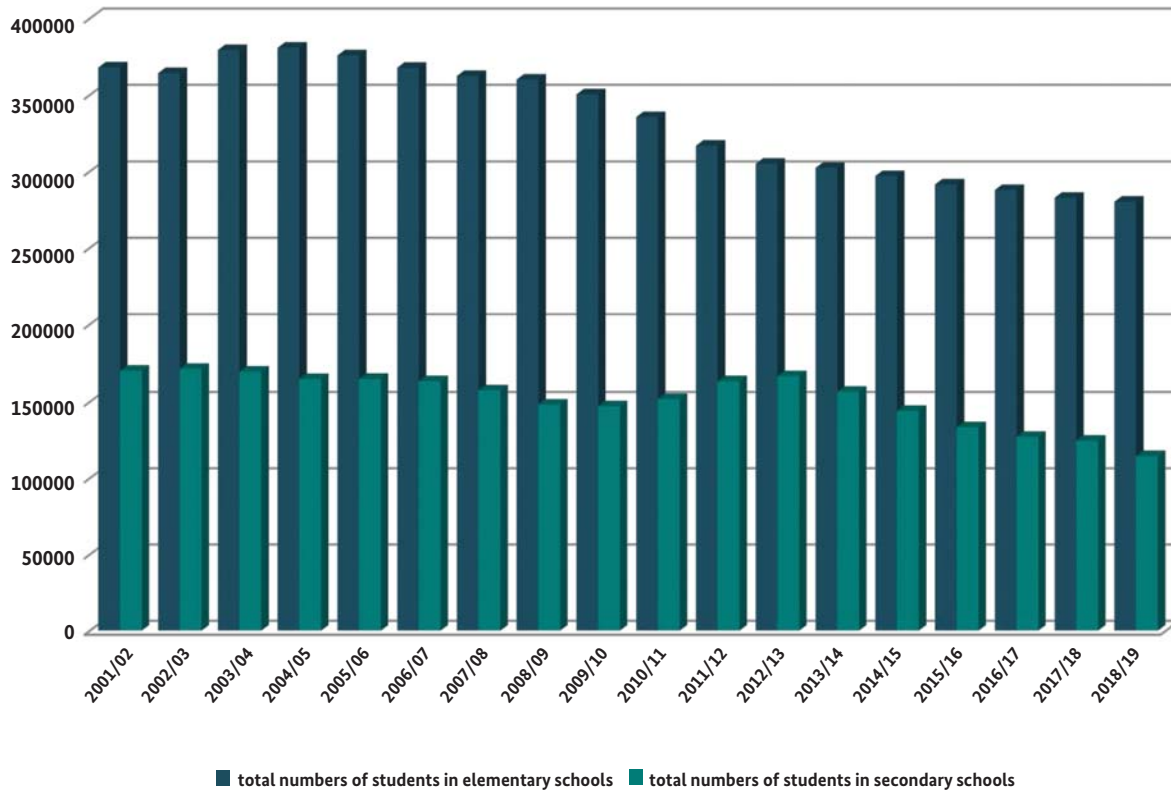


Illustration 2 The total number of students in elementary and secondary schools is constantly and proportionally decreasing in the course of the last 18 years. From 2001 to 2019, the number of students in elementary schools has decreased by 23.9% (87 778 students less), whereby the number of secondary school students decreased by 30.1% (52 732 students less). In total 140 510 elementary and secondary students are less enrolled in schools compared to 2001/02.

According to the BHAS estimates, the BiH population decreased from 2010 to 2017 by 339 000, which indicates that the lower numbers of students follow a general trend concerning the population number in the country.

Number of students vs. number of teachers in elementary schools 2001/02 - 2018/19

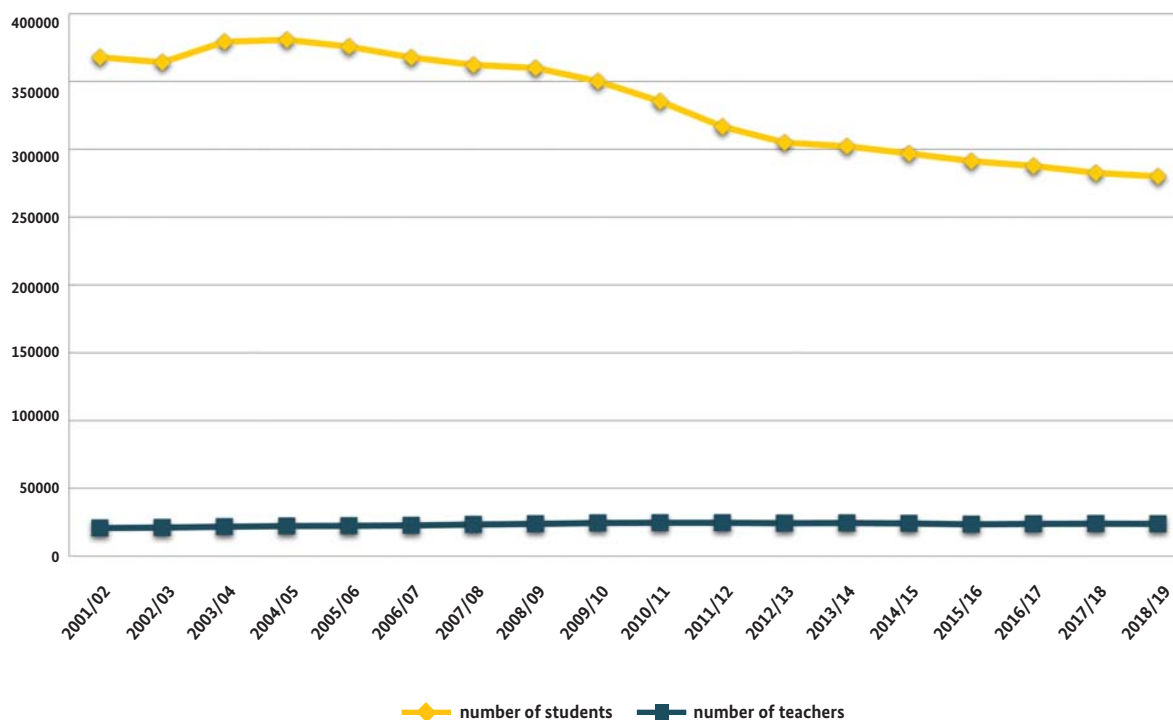


Illustration 3 Despite the clear decreasing trend of students in elementary schools, the number of teachers has even increased. Since the school year 2001/02 until now, the number of teachers in elementary schools has increased by more than 12.9%, whereby the number of students has decreased by around 23.9%.

According to this data, the student-teacher ratio has also changed over the past 18 years, e.g. in the school year 2001/02 the student-teacher ratio was 17.3:1, whereby in 2016/2017 the ratio was 12.8:1, 2017/2018 11.8:1 and 2018/19 11.7:1.

Number of students vs. number of teachers in secondary schools 2001/01- 2018/19

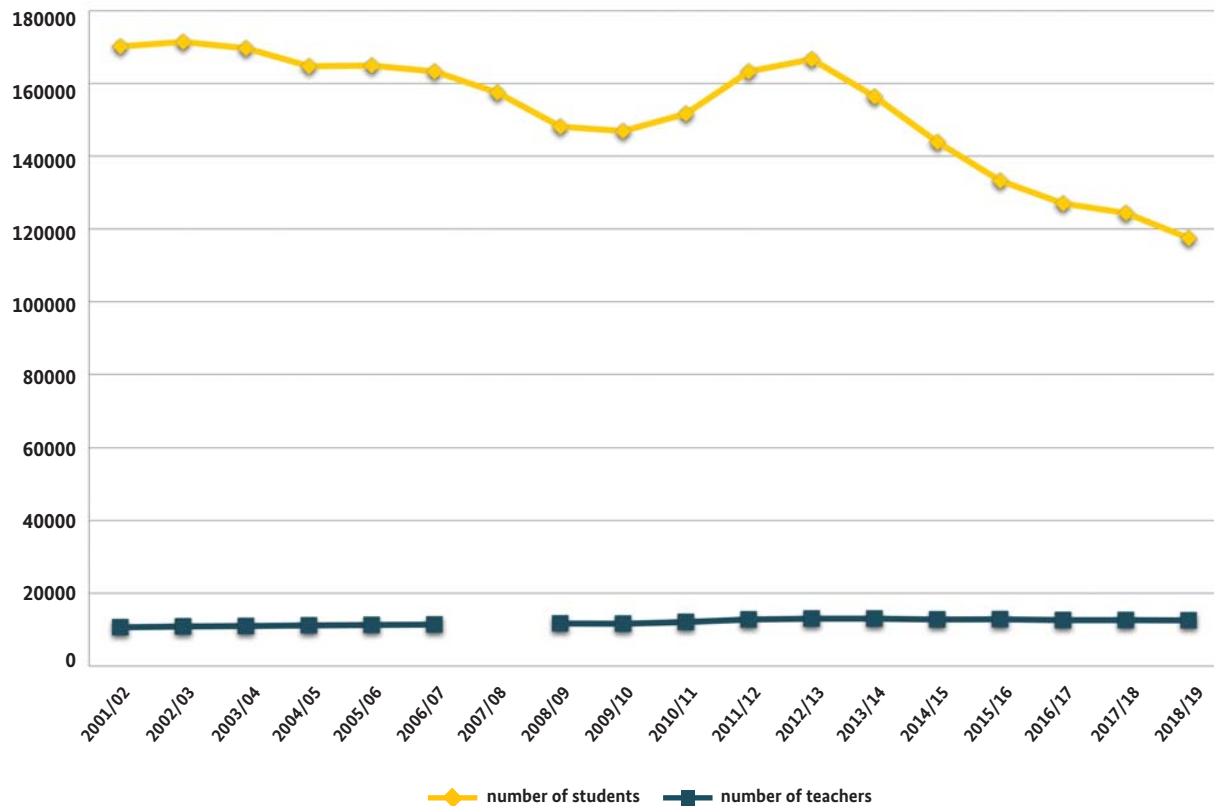


Illustration 4 Despite the clear decreasing trend of students in secondary schools, the number of teachers has increased. Since the school year 2001/02, until now, the number of teachers in secondary schools has increased by more than 15.10%, whereby the number of students has decreased by more than 30.96%.

According to this data, the student-teacher ratio has also changed over the past 18 years, e.g. in the school year 2001/02 the student-teacher ratio was 16:1, whereby in 2016/17 the ratio was 10:1, 2017/18 9.8:1 and in 2018/19 9.3:1.

Number of students enrolled in different types of secondary schools 2006/07 - 2018/19

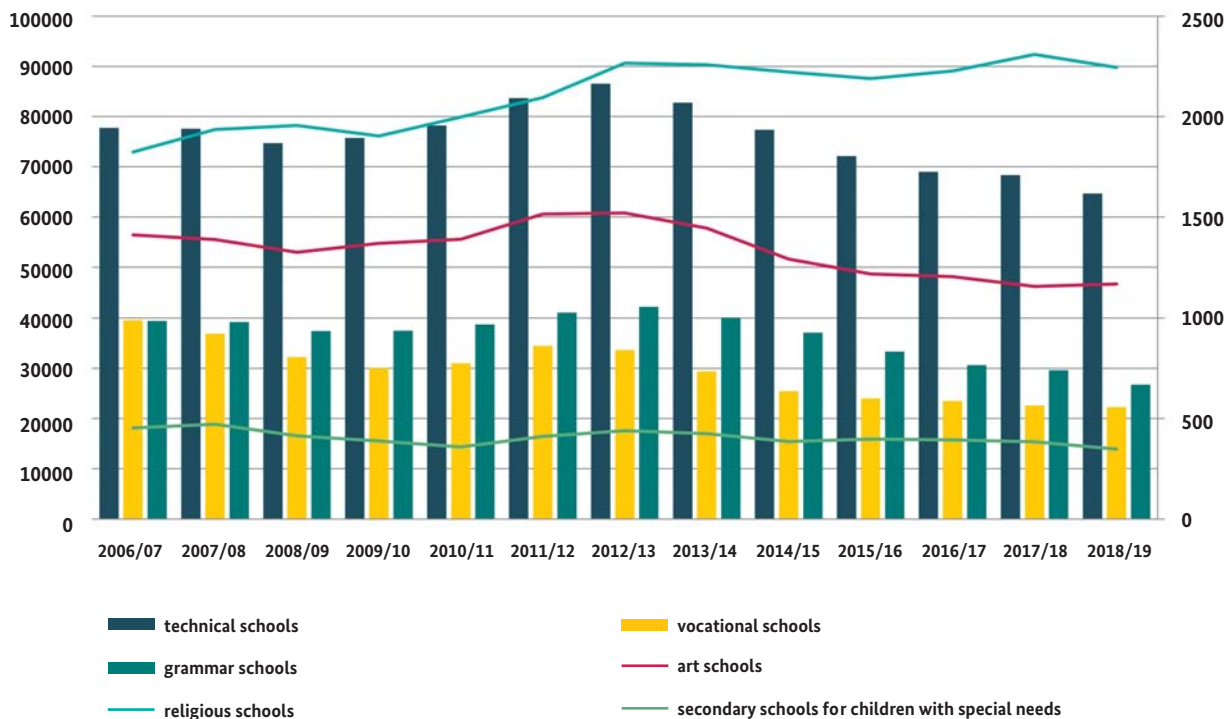
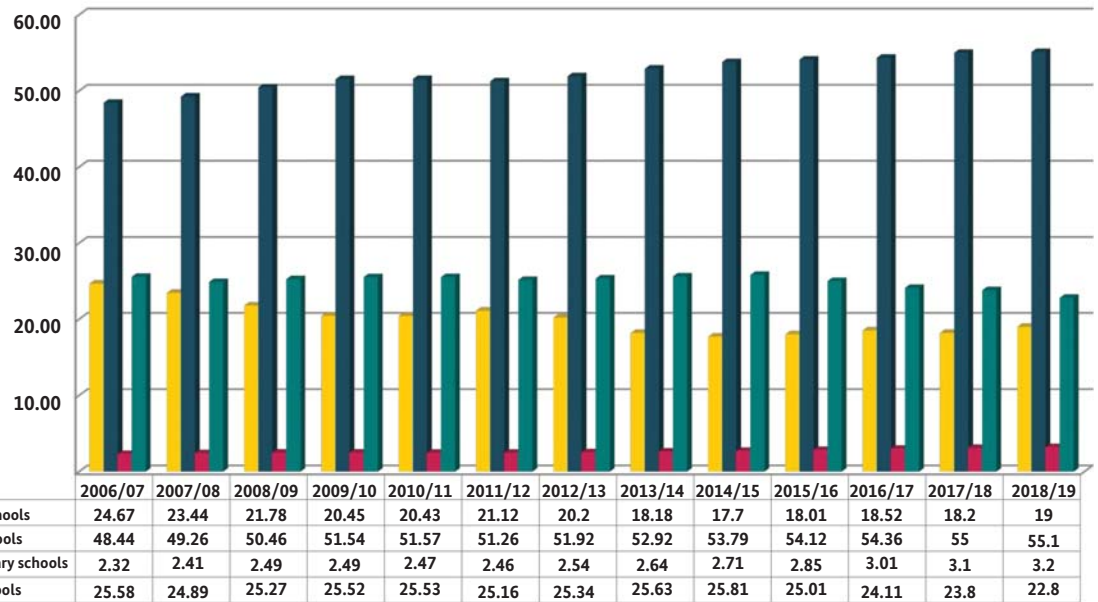
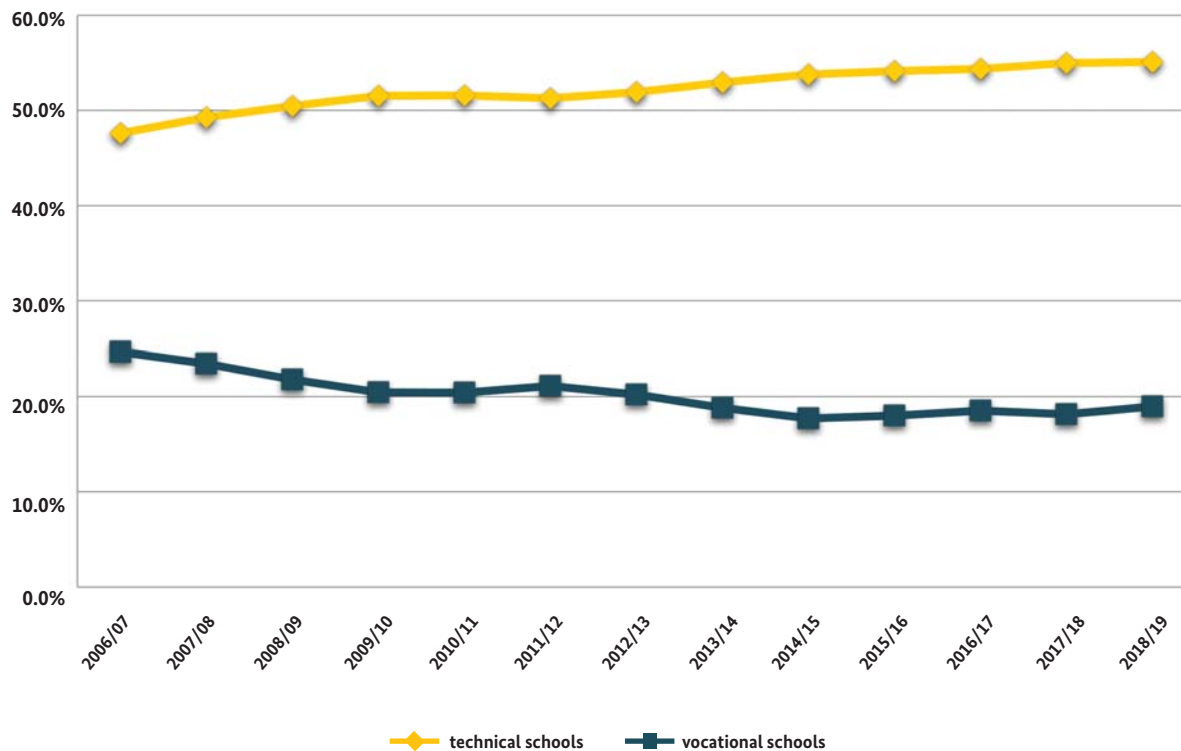


Illustration 5 The decreasing trend of students is clearly visible in almost all types of secondary schools. Since the school year 2006/07 until 2018/19, the number of students in technical schools decreased by 16.8%, in vocational schools by 39.5%, in grammar schools by 31.5%, in art schools by 17.3% and in special schools by 23.4%. Only the number of students in religious schools increased by 18.7%. In the school year 2018/19, 64 706 students have enrolled in technical schools and 22 280 in vocational schools.

Secondary education enrolment rate 2006/07- 2018/19



Technical and vocational schools enrolment 2006/07 - 2018/19



Illustrations 6 and 7 In addition to the clear decreasing trend of students in all types of secondary schools (see Illustration 5), it is obvious that the distribution of students among secondary schools has also changed during the years. The proportion of students enrolled in technical and vocational schools has changed.

Of the total number of students in secondary schools, the share of students enrolled in technical schools increased by 6.64%, while the number of students in vocational schools decreased by 5.70%.

Vocational and technical vs. other secondary schools 2006/07- 2018/19

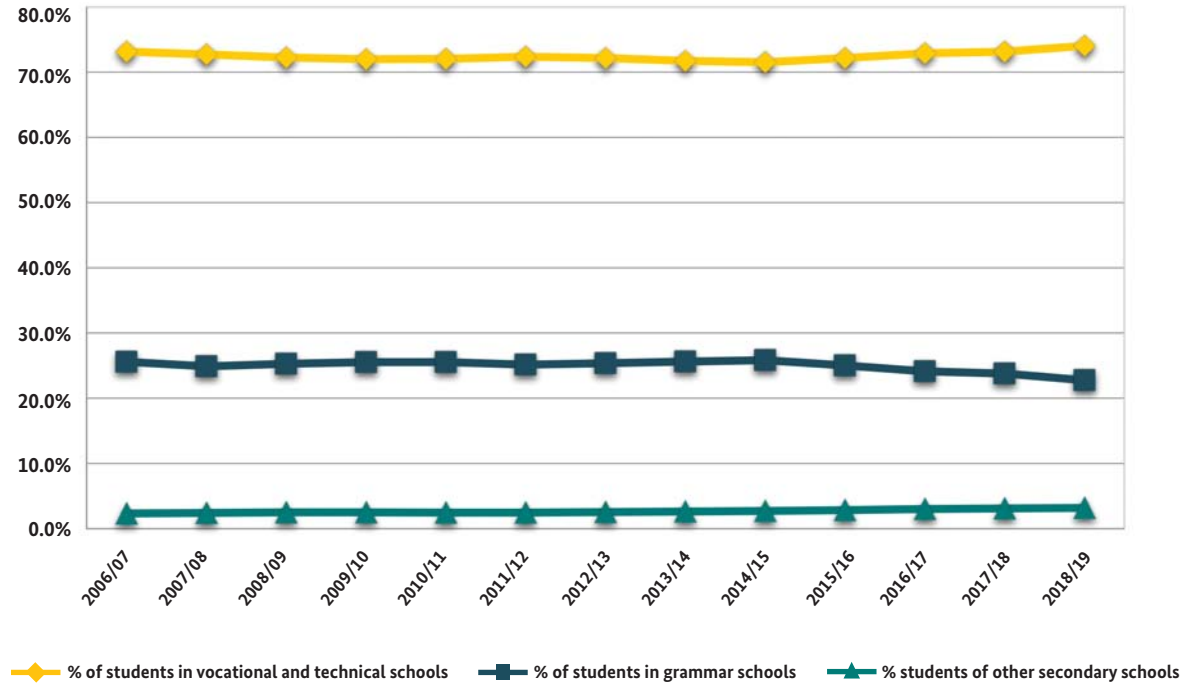


Illustration 8 The biggest number of secondary school students in BiH are enrolled in technical and vocational schools, despite apparent misalignments between technical and vocational school offerings and the needs of the labour market which has serious consequences like contributing to the very high youth unemployment rate in BiH.¹⁹ Interest in these schools remains almost the same during the last 10 years.

From 2006 until today, the number of students enrolled in technical and vocational schools ranged always between 70 and 74% (vocational schools 18-24% and technical schools 48-54%).²⁰

¹⁹ The World Bank (2019). *Review of Efficiency of Services in Pre-University Education, Phase I: Stocktaking* [Internet]. Available on <http://documents.worldbank.org/curated/en/719981571233699712/pdf/Bosnia-and-Herzegovina-Review-of-Efficiency-of-Services-in-Pre-University-Education-Phase-I-Stocktaking.pdf>

²⁰ Note: Other secondary schools include Art schools, Religious schools, Schools for children with special needs.

Number of TVET schools in Bosnia and Herzegovina

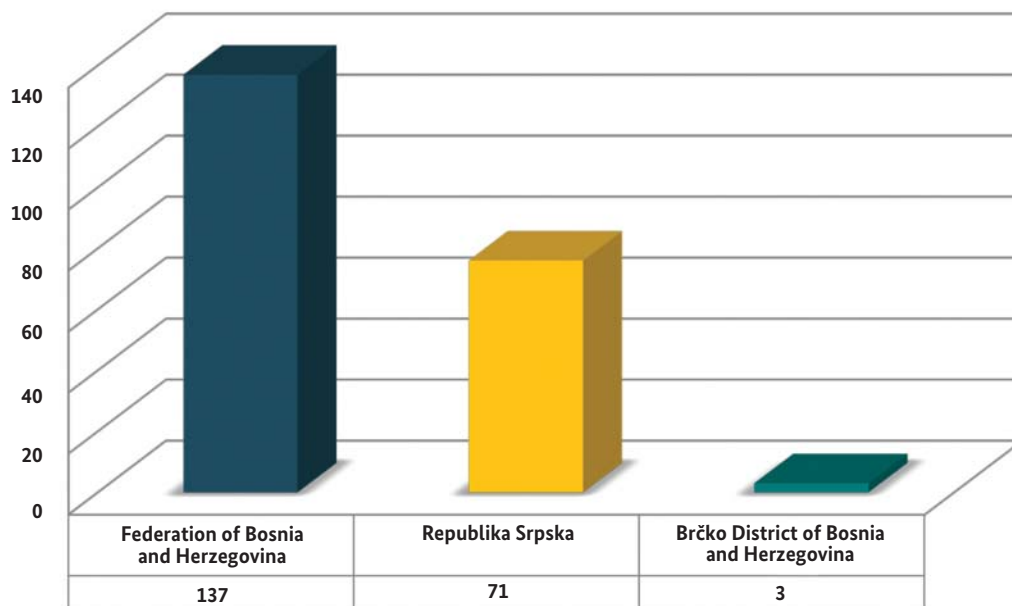


Illustration 9 The total number of TVET schools in Bosnia and Herzegovina is 211, whereby 64.93% are in the Federation of Bosnia and Herzegovina, 33.65% in Republika Srpska and 1.42% in the Brčko District of BiH.²¹ The number of TVET schools is proportional to the number of residents of the entities and the Brčko District of BiH. According to the Results of the 2013 Census²², 3 531 159 live in Bosnia and Herzegovina: Federation of Bosnia and Herzegovina 2 219 220 (62.85%), Republika Srpska 1 228 423 (34.79%) and the Brčko District of BiH 83 516 (2.37%).

²¹ Agency for Preschool, Primary and Secondary School Education of BiH (2019). [Internet]. Available on http://www.vetbih.org/portal/index.php?option=com_content&view=Article&id=99&Itemid=179&lang=bs

²² Agency for Statistics of Bosnia and Herzegovina – Census of Population, Households and Dwellings in Bosnia and Herzegovina (2013). *Census of Population, Households, and Dwellings in Bosnia and Herzegovina – Final Results*. [Internet]. Available on http://www.popis.gov.ba/popis2013/doc/RezultatiPopisa_BS.pdf

% of girls in technical and vocational schools 2006/07 - 2018/19

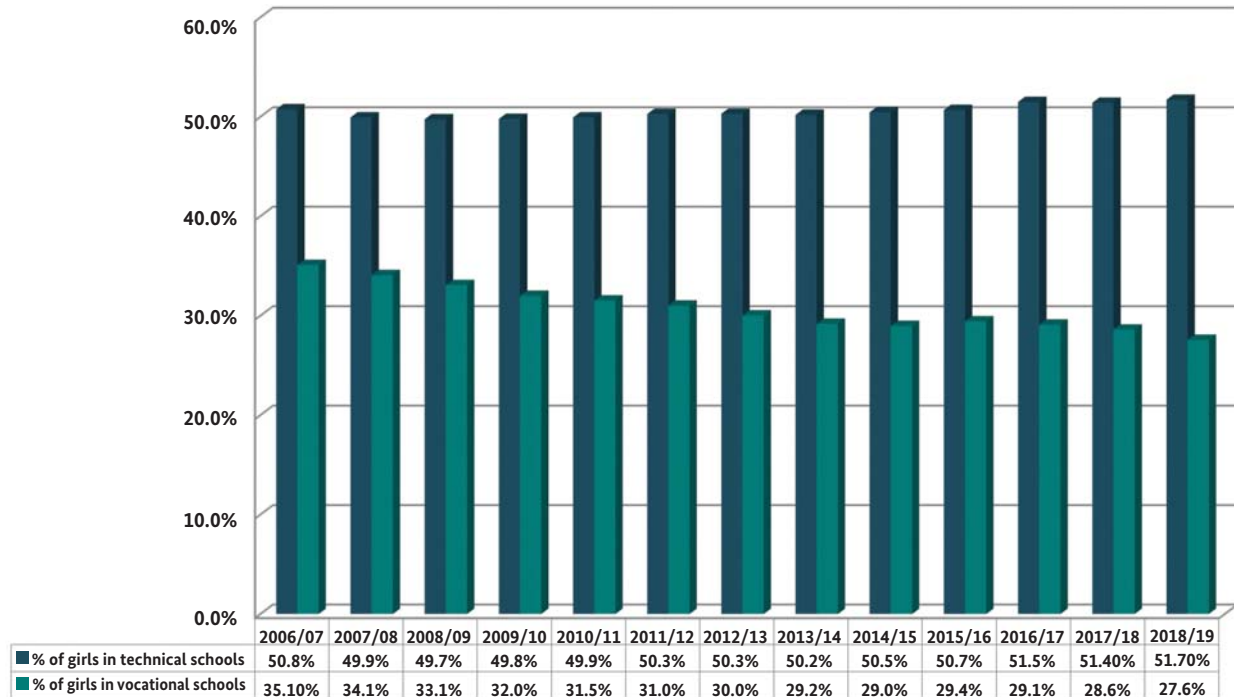
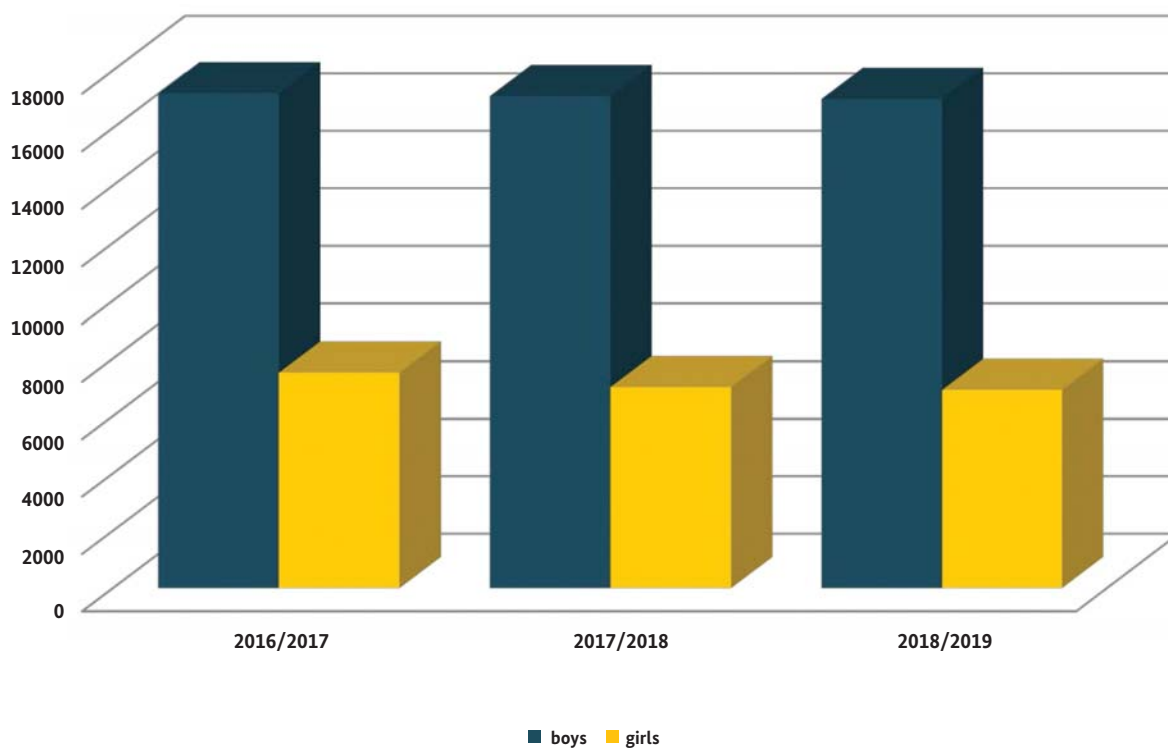


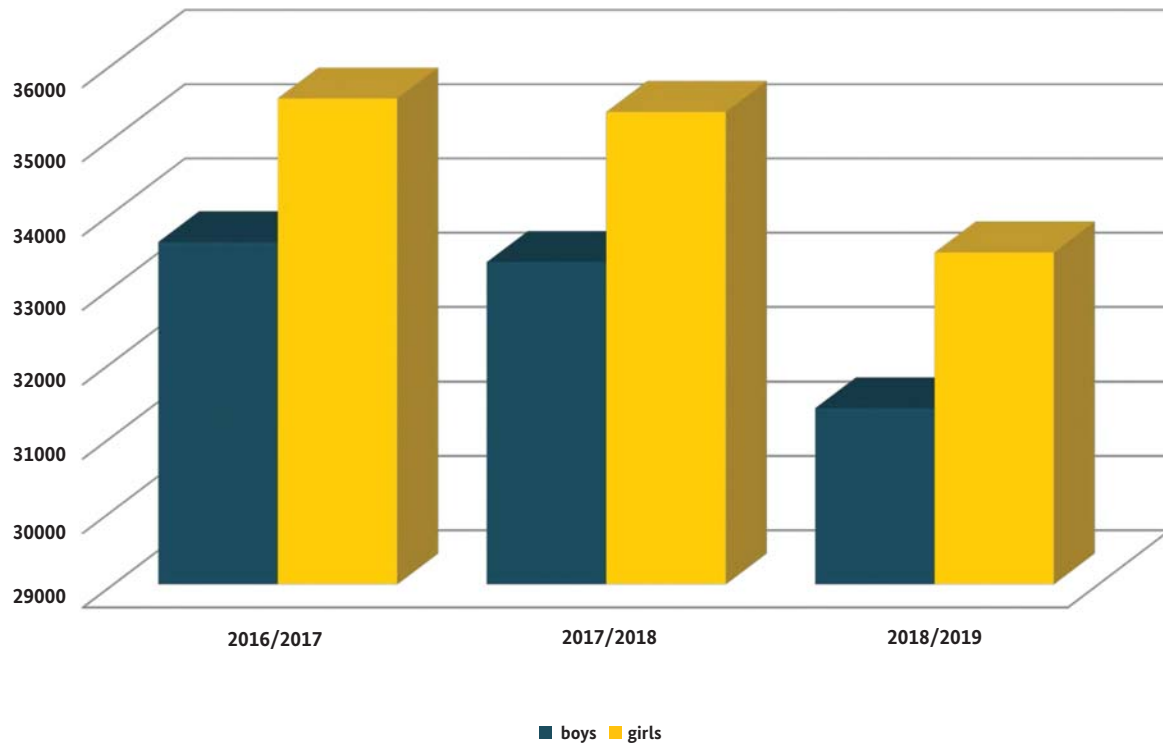
Illustration 10 The percentage of girls enrolled in technical schools remains almost the same during the years, while the percentage of girls enrolled in vocational schools significantly decreased during the years.

Since 2006 until today, the number of girls in technical schools decreased for 6000 (compared to the present day, 15.21% less than in 2006), while in vocational schools the number decreased for 7542 (compared to the present day, 55.12% less than in 2006).

The enrolment rate of boys and girls in vocational schools in BiH 2016/17- 2018/19



The enrolment rate of boys and girls in technical schools in BiH 2016/17- 2018/19



Illustrations 11 and 12 It is evident that the enrollment rate of girls in technical and vocational schools decreased in the period from the school year 2016/17 until the school year 2018/19. The number of boys enrolled in vocational schools in the concerned period was stable, while in technical schools this number decreased significantly.

Students' expectations of the highest level of education (rural and urban areas in BiH)

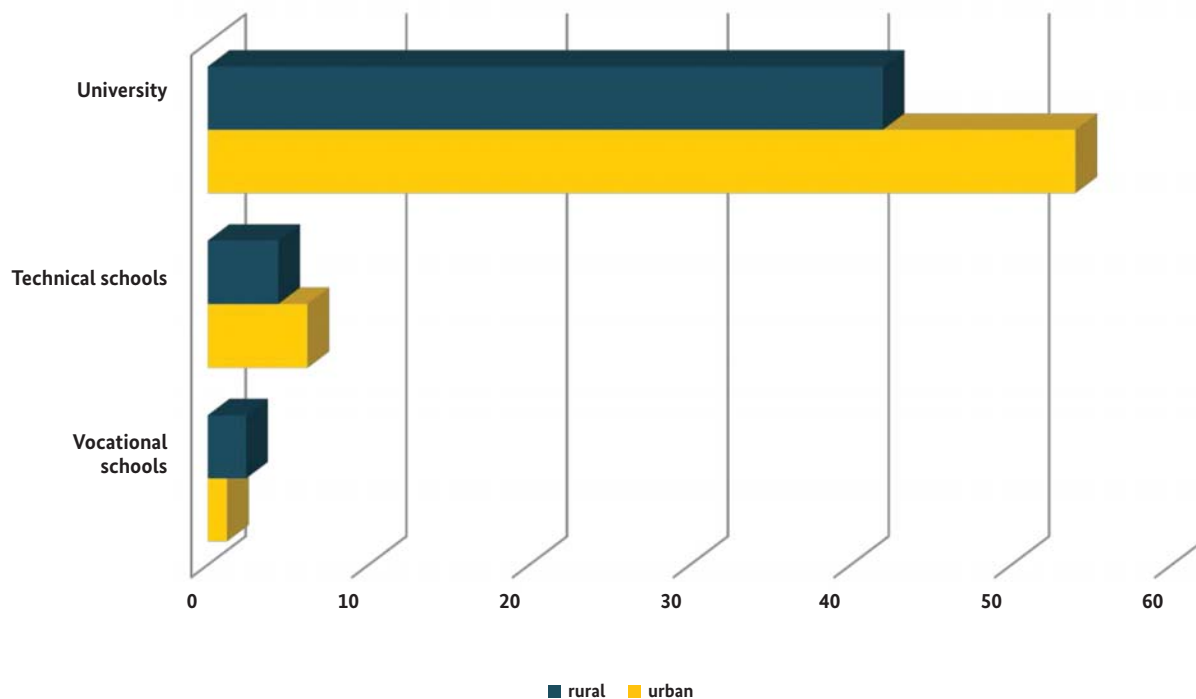


Illustration 13 According to the results of Programme for International Student Assessment PISA 2018²³ only 1.2%-6.2% of students from rural and urban areas are interested in vocational or technical education as the highest level of education. Most of them (around 50%) are expecting that the university degree will be the highest level of their education.²⁴

²³ The Programme for International Student Assessment PISA 2018 is carried out by the Agency for Pre-Primary, Primary and Secondary Education of BiH and around 7000 students from 70 schools in Republika Srpska, 5 schools in Brčko District and 138 schools in the Federation of BiH.

²⁴ The Agency for Pre-Primary, Primary and Secondary Education of Bosnia and Herzegovina. PISA 2018, *Izveštaj za Bosnu i Hercegovinu*. [Internet]. Available on <http://anyflip.com/giwgb/lejs/>

Averages in math, reading and science in secondary schools in BiH

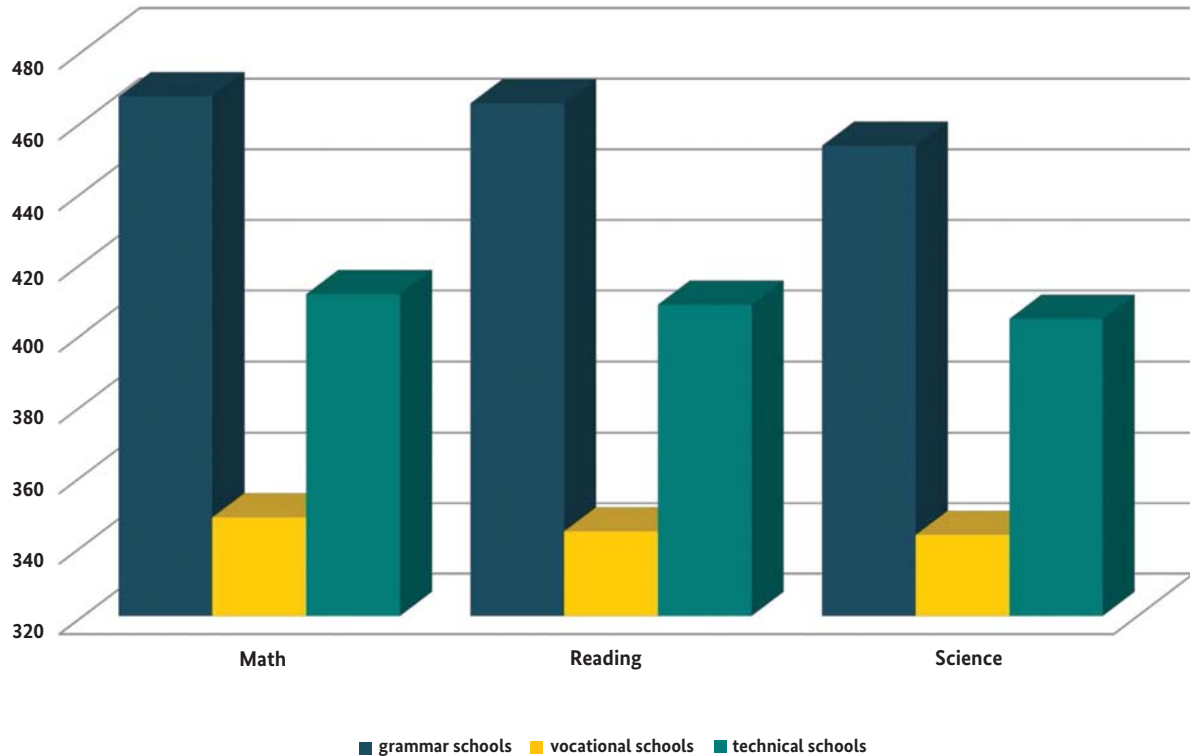
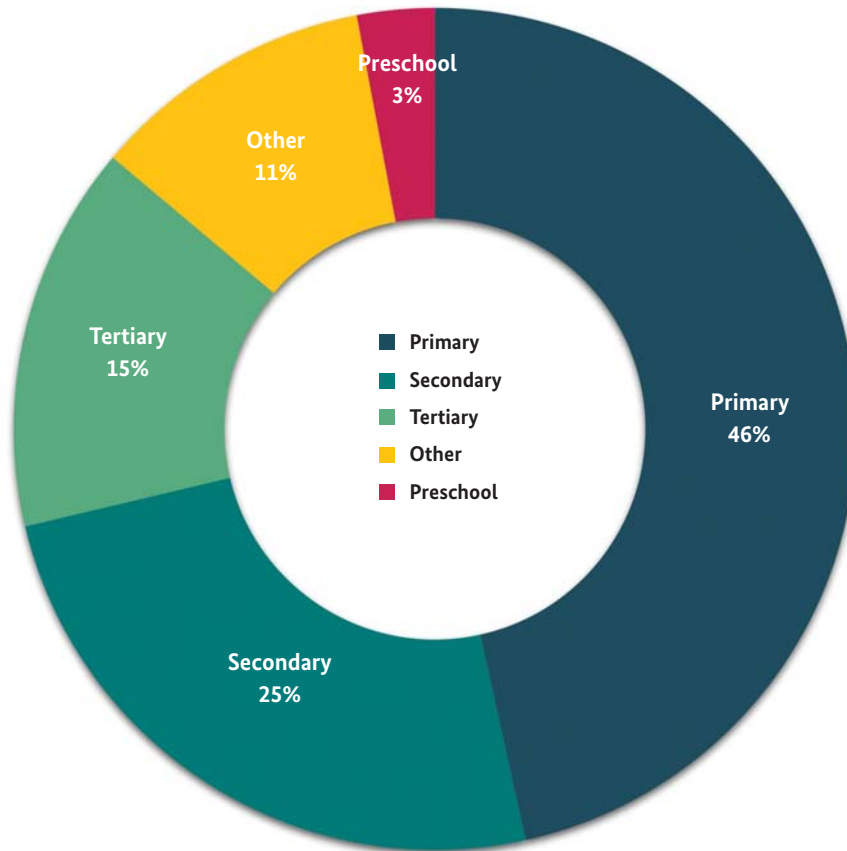


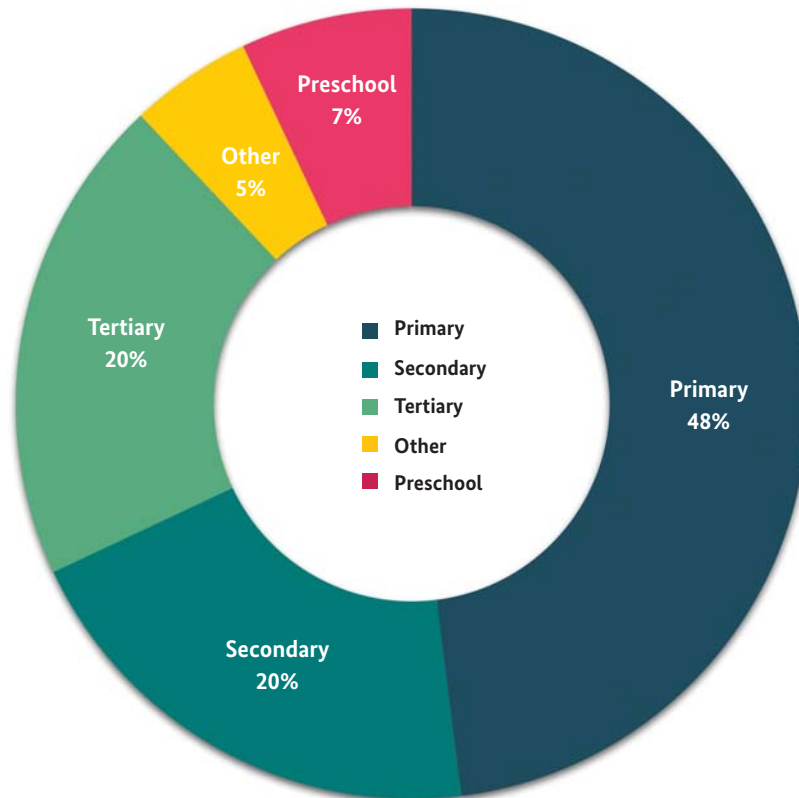
Illustration 14 This graphic presents the average of PISA results in math, reading and science in secondary schools in BiH. 15 years old students of grammar, vocational and technical schools participated in such tests. Only the grammar school students reached the performance limit in all three disciplines. Furthermore, it clearly shows that vocational schools students achieved the lowest results in all three disciplines.²⁵

²⁵ The Agency for Pre-Primary, Primary and Secondary Education of Bosnia and Herzegovina. PISA 2018, *Izveštaj za Bosnu i Hercegovinu*. [Internet]. Available on <http://anyflip.com/giwgb/lejs/>

Education expenditure by functional classification in FBiH



Education expenditure by functional classification in RS



Illustrations 15 and 16 According to the Review of Efficiency of Services in Pre-University Education, Phase I from August 2019, only 25% in FBiH and 20% in RS out of total education expenditure has been allocated to secondary education. Here is important to mention that all secondary schools are treated equally in the distribution of expenditure, although TVET schools have much greater funding requirements through practical training they offer.²⁶

²⁶ The World Bank (2019). *Review of Efficiency of Services in Pre-University Education, Phase I: Stocktaking* [Internet]. Available on <http://documents.worldbank.org/curated/en/19981571233699712/pdf/Bosnia-and-Herzegovina-Review-of-Efficiency-of-Services-in-Pre-University-Education-Phase-I-Stocktaking.pdf>

Annotation: Education spending in BiH is roughly on par with other countries in the region, as well as the EU. Total government expenditure on education as a percent of GDP is approximately 4.6 percent in BiH, slightly higher in FBiH at 4.8 percent, and 4.4 percent in RS. Spending on primary education per student varies considerably within the country, suggesting high inequities and inefficiencies in the distribution of resources. Spending per student is about 24% higher in FBiH than in RS.²⁷

Although the GDP percentages given are in line with the EU figures, the expenditure in the final figures is far below the EU standard. This means that only basic costs such as personnel costs can be covered by these funds. This is also confirmed by the next illustration.

Personnel costs in pre-university education as a percentage of total education spending 2016 or the latest available in BiH

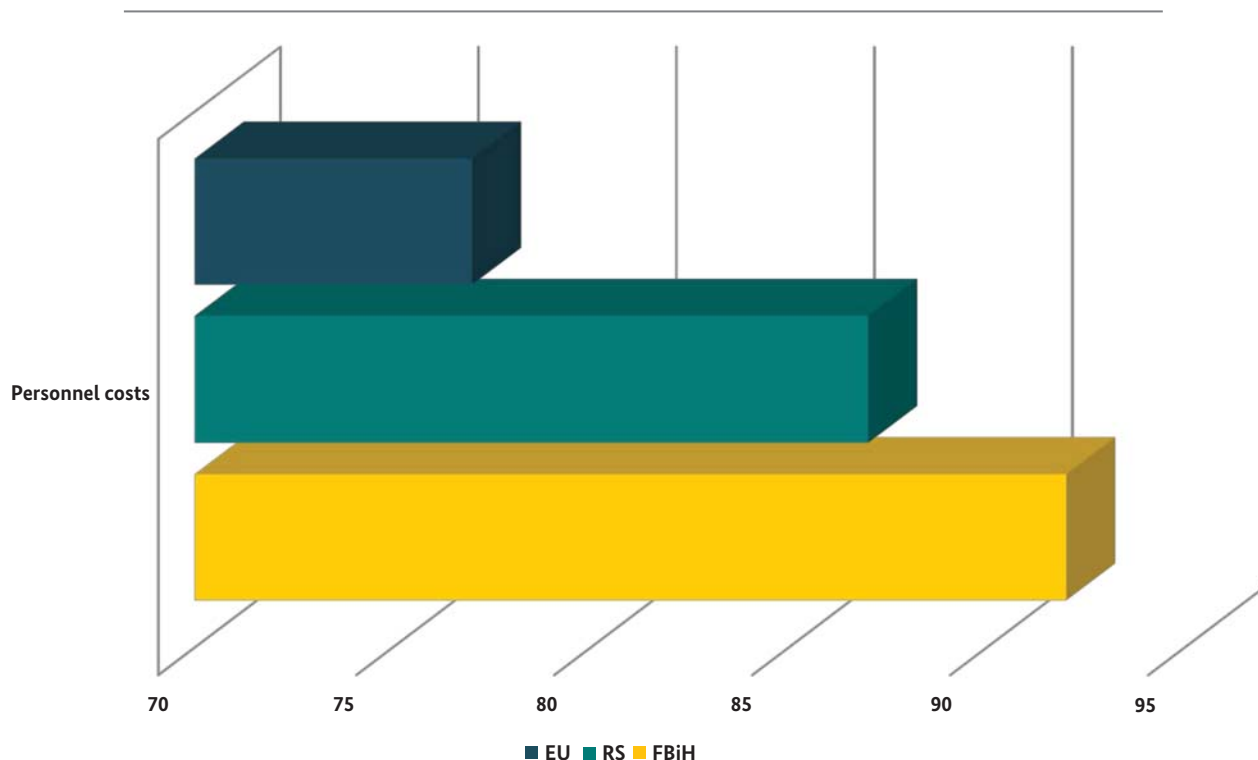


Illustration 17 BiH spends the vast majority of its education resources on personnel. 91% of education expenditure in FBiH on both levels (primary and secondary) are staff costs. RS allocates most of its education expenditure in primary and secondary education to staff compensation as well, but slightly less than FBiH at about 87% for both levels. Distribution of education spending is inefficient and inequitable, and it leaves little room for needed investments in quality.²⁸

²⁷ The World Bank (2019). *Review of Efficiency of Services in Pre-University Education, Phase I: Stocktaking* [Internet]. Available on <http://documents.worldbank.org/curated/en/719981571233699712/pdf/Bosnia-and-Herzegovina-Review-of-Efficiency-of-Services-in-Pre-University-Education-Phase-I-Stocktaking.pdf>

²⁸ The World Bank (2019). *Review of Efficiency of Services in Pre-University Education, Phase I: Stocktaking* [Internet]. Available on <http://documents.worldbank.org/curated/en/719981571233699712/pdf/Bosnia-and-Herzegovina-Review-of-Efficiency-of-Services-in-Pre-University-Education-Phase-I-Stocktaking.pdf>

