

LABOUR MARKET RESEARCH IN THE FEDERATION OF BIH 2020/2021.







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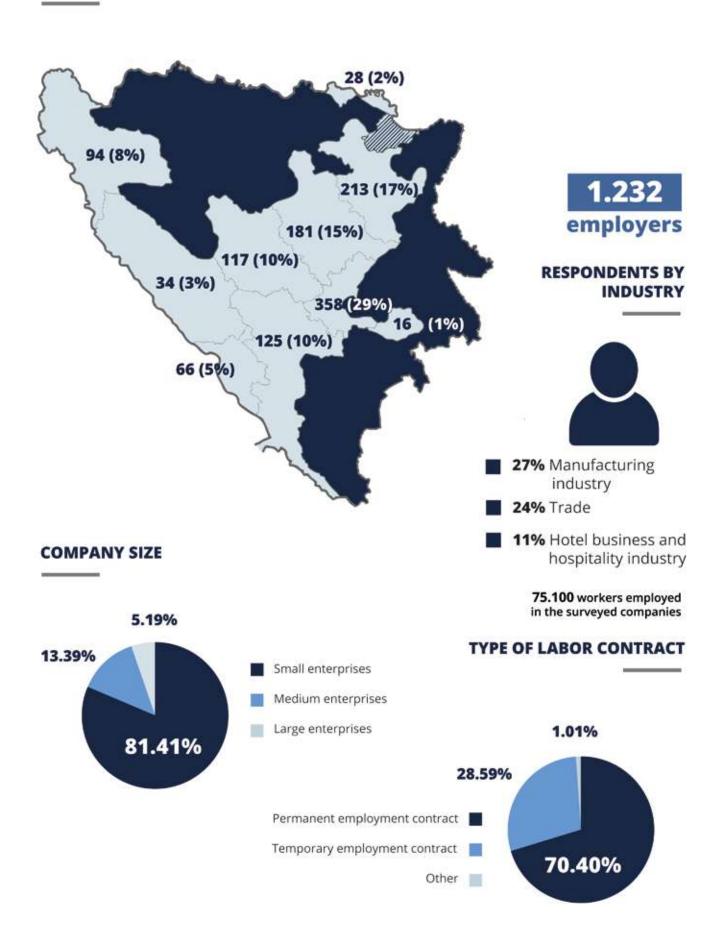
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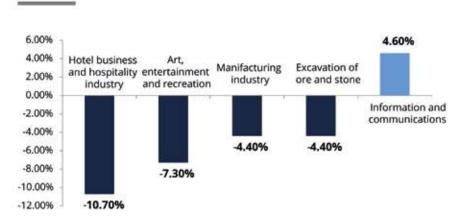
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INTRODUCTION

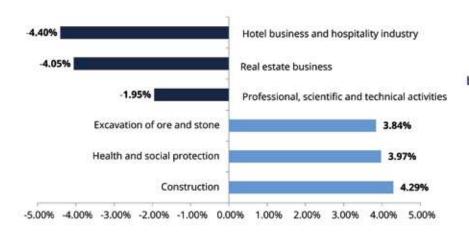
THE MOST SIGNIFICANT CHANGES IN THE EMPLOYMENT INDEX IN 2020 COMPARED TO 2019



10,70%

reduction of employment index in hotel business and hospitality industry in 2020 compared to 2019

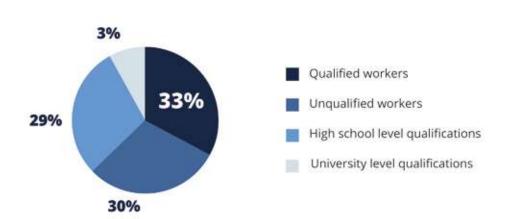
THE MOST SIGNIFICANT CHANGES IN THE WAGE INDEX IN 2020 COMPARED TO 2019



4,40%

reduction of wage index in hotel business and hospitality industry in 2020 compared to 2019

% OF UNEMPLOYED ACCORDING TO QUALIFICATION STRUCTURE IN 2020



33%

of persons with the 3rd degree high school level professional qualifications – qualified workers are unemployed

INTRODUCTION

The report on the results of the labour market research 2020/2021, as an analysis of the needs and trends in the labour market in the Federation of BiH, was prepared in late February 2021, with the pandemic COVID-19 still present, which affected the entire the world in the first quarter of 2020.

Preparations for the labour market research were made in December 2020, and the survey and collection of results was done in January 2021, through a synergy of the Federation Employment Service and cantonal employment services and support of the Improvement of Labour Market Research project, funded by the EU.

In order to prevent the spread of the virus and serious health consequences for the population, on March 18, 2020 the Government of the Federation of BiH passed the Decision on Declaring a State of Disaster caused by coronavirus (COVID-19) in the Federation of BiH (V number: 408/2020), and the Federation Civil Protection Headquarters and the Federation Ministry of Health adopted a number of orders and measures, including the measure of limited movement of people as well as the suspension of work for certain business activities that lasted until 30 June 2020.

At the very beginning the appearance of the virus and the declaration of the pandemic had a particularly negative impact on the catering and hotel industry in the Federation of BiH, as well as the processing industry and transport, but later on in the other activities as well. This period remained marked by the dismissal of workers, but also by a strong struggle to preserve jobs using all available resources and measures.

Various interventions and measures through laws and other regulations, from the level of the Federation to the municipal level (contribution subsidies, salary subsidies, establishment of the Guarantee Fund, moratorium on loans, suspension of calculation and payment of default interest on public revenues, abolition of corporate income tax and advance payment income, suspension of forced collection procedures, subsidies for employers in the field of tourism, suspension of rent fees, abolition of certain taxes, etc.) systematically mitigated the

consequences in the economy, but the overall events and duration of the global crisis have led to major consequences in the labour market.

In addition to the projections of employers regarding business, as well as the demand for labour, i.e. the projection of new employment of workers and an overview of required competencies of workers, the report also provides an overview of the most numerous occupations and a brief overview of the number of unemployed persons. Also, in this context, as an annex to the Report, a list of secondary schools in the Federation of BiH is attached, with an overview of both the number of enrolled students in the school year 2020/2021 and the total number of enrolled students in all fields.

The Federation Employment Service will publish this Report on its portal www.fzzz.ba and submit it to the institutions and organizations relevant in the field of employment and education, and take all necessary activities to stabilize the situation on the labour market, in accordance with its competencies.





1. EMPLOYMENT AND SALARIES IN THE FEDERATION OF BOSNIA AND HERZEGOVINA IN 2020

In 2020, after a long period, the trend of growth in the number of employed persons in the Federation of Bosnia and Herzegovina from previous years stopped. According to the Federation Statistics Office, in the Federation of Bosnia and Herzegovina in 2020 there was an average of 520,162 employees, which, compared to the 2019 average (531,483), is less by 11,321 workers or 2.1%. The decrease in the index of the number of employees in 2020 compared to 2019 was recorded in the following activities: Hotels and restaurants (-10.7%), Arts, entertainment and recreation (-7.3%), Manufacturing and Mining ore and stone (-4.4%), Real estate (-4.1%), and Trade (-3.4%). In the Hospitality and catering industry, in April 2020, the number of unemployed decreased by as much as 25%, which means that every fourth worker in the hospitality industry lost their job at that time.

The highest growth index of the number of employees in 2020 (compared to 2019) was recorded in the following activities: Information and communication (4.6%), Administrative and support service activities (3.3%), Health and social work 2.1%) and Construction 1.4%.

Table 1: Number of employees in the Federation of BiH in 2019 and 2020 by activities 1

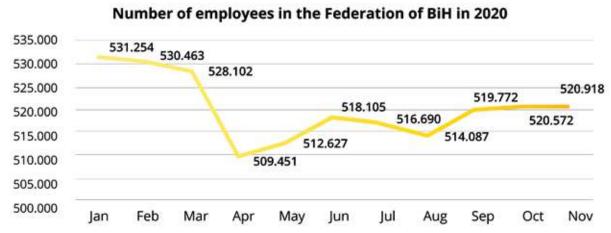
	A 11 10	Number of	employed		Index
	Activities	0 2020	0 2019	<u>XII 2020</u> θ 2019	0 2020 0 2019
	Total	520,162	531,483	97.8	97.9
Α	Agriculture, forestry and fishing	10,743	10,989	97.2	97.8
В	Mining and quarrying	12,671	13,259	95.7	95.6
C	Manufacturing industry	101,729	106,385	96.0	95.6
D	Production and supply of electricity, gas, steam and air conditioning	8,645	8,724	97.9	99.1
Е	Water supply; wastewater disposal, waste management and remediation activities	8,527	8,652	98.6	98.6
F	Construction	26,363	26,007	99.7	101.4
G	Wholesale and retail trade; repair of motor vehicles and motorcycles	95,570	98,951	95.3	96.6
Н	Transport and storage	24,419	24,857	97.8	98.2
I	Accommodation and food service activities (hotels and restaurants)	24,473	27,414	85.6	89.3
J	Information and communication	16,224	15,509	108.1	104.6
K	Financial and insurance activities	12,070	12,115	100.3	99.6
L	Real estate business	3,073	3,206	91.1	95.9
М	Professional, scientific and technical activities	16,594	16,593	100.2	100.0
N	Administrative and support service activities	12.464	12.068	106,0	103,3
0	Public administration and de- fence; compulsory social insur- ance	48.228	48.077	100,4	100,3

¹ Data of the Federal Office for Statistics

Р	Education	43.113	43.436	101,4	99,3
Q	Health and social work activities	35.360	34.627	103,1	102,1
R	Arts, entertainment and recreation	9.350	10.087	94,2	92,7
S	Other service activities	10.546	10.527	100,2	100,2

The first half of 2020 was marked by major changes caused by the SARS CoV 2 pandemic, i.e. COVID-19. The state of natural disaster in Bosnia and Herzegovina was declared on March 17, 2020. As in most other countries, measures were taken in Bosnia and Herzegovina to combat the pandemic, including lockdown, which disrupted a large number of foreign trade chains, burdened the budget, reduced taxes and contributions, laid off workers and caused many other disturbances in the economic activities.

Figure 1: Number of employees in the Federation of BiH in 2020



Observed in relative numbers in the manufacturing industry, where the number of employees decreased by 4.4%, this indicator is not recovering from the decline recorded in March, which is a long-term consequence. In absolute numbers, the number of employees in this industry was reduced by almost 5,000.

Figure 2: Decline in the number of employees in the industry C

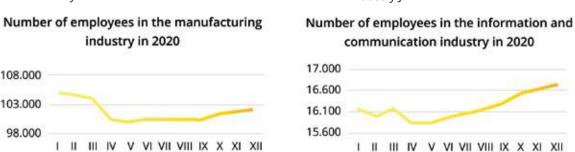


Figure 3: Growth in the number of employees in the industry J

Despite all of the problems caused by the COVID-19 pandemic, there is still a structural imbalance between supply and demand in the labour market, which is an obvious problem pointed out by employers in the survey conducted as a part of the labour market research. Inconsistencies in occupations, skills, qualifications or regional distribution are just some of the problems employers have faced in finding the workers they need. Except in a few cases of deficiency of a certain occupation, there is a general indication of a deficiency of knowledge and skills for a specific job.

Unfortunately, a large number of unskilled people still participate in the working-age population and labour force, who, without a program or strategic interventions, face the risk of marginalization, long-term unemployment and reduced employment opportunities.

It is to expect that employment in the informal economy in the total number of employees will continue to be one of the problems on the labour market, together with unfair competition among employers and disrespect for financial discipline. Consequently, there will remain the problem of perceiving the real employment and unemployment rate, but also the problem of social status and the possibility of exercising the rights of persons working in such an environment.

The education system plays a very important role in solving some of the listed problems. It is possible to improve them through cooperation with employers, in the part related to practical teaching and curriculum development, given the requirements for additional knowledge and skills that employers expect from the workforce and having in mind technological development. It is commendable that as part of this research, a significant number of employers expressed readiness and offered resources for organizing practical classes for secondary school and university students for certain occupations. The opportunity offered by international projects in this area should also be utilised.

All of the above, together with active employment policy measures implemented by the Federation Employment Service and cantonal employment services, for which satisfactory performance measurement activities have been initiated, can to a certain extent affect the stabilization of labour market conditions and provide intervention in the employment process, and thus prevent a further decline in employment.

Also, in this context, it is necessary to emphasize the problem of migration of skilled labour (both employed and unemployed) to EU countries, especially to Germany, Austria and Slovenia, which partially stopped in this period of the COVID-19 pandemic, but after the epidemiological circumstances improve it will be a major problem for the further development of the business sector and human resources in BiH. Consequently, the overall relations in the labour market and social security system (health insurance, pension and disability insurance, unemployment insurance) are potentially endangered. Signals coming from the FBiH Association of Employers already indicate the need for a more flexible legislation governing the employment of foreigners, in order to compensate for the lack of domestic skilled labour, among other things caused by departure of people, through hiring foreign workers.

Solving these problems in the labour market requires synergy of all relevant institutions that should lead to the improvement of the business environment in terms of adequate reduction of the burden of taxes and contributions, facilitating business start-ups, strengthening active employment policy measures (training, entrepreneurship, and employment of hard-to-employ categories), stimulating research, development and education.

Table 2: Active population (employed + unemployed) in the Federation of BiH by gender²

	0.0	000	0.20	V4.0	In	dex
Indicators	0 2	020	0 20	119		2020 2019
	total	women	total	women	total	women
Active population (employed + unemployed)	841.743	405.645	845.053	404.511	99,6	100,3
Total employed	520.162	218.280	531.483	222.516	97,9	98,1
Employees in legal entities	462.410	194.181	471.849	197.294	98,0	98,4
Employees in crafts and related activities	57.752	24.099	59.634	25.222	96,8	95,5
Unemployed	321.581	187.365	313.570	181.995	102,6	103,0
Registered unemployment rate %	38,2	46,2	37,1	45,0		

The average net wages in the Federation of BiH in 2020 increased by 3.02% compared to 2019, and the average gross wages by 3.16%. The reason for the increase in the average net and gross wages in the Federation of BiH in 2020, despite the large number of layoffs, lies in the fact that most workers with lower wages lost their jobs.

By activities, the largest increase in the average net wages was recorded in the following activities: construction (4.29%), health and social work (3.97) and mining and quarrying (3.84%).

The largest decrease in the average net wages was recorded in the following activities: hotels and restaurants (-4.40%), real estate industry (-4.05%) and professional, scientific and technical activities (-1.95%). A similar ratio by industries was recorded for the average gross wages.

Table 3: Salaries in the Fed-		Net salary			Gross sala	ary
eration of BiH in 2020 by industries ³	Ø 2019	Ø 2020	Ø2020 Ø2019	Ø 2019	Ø 2020	Ø2020 Ø2019
A-Agriculture, forestry and fishing	899	912	1.45%	1,369	1,389	1.46%
B-Mining and quarrying	1,015	1,054	3.84%	1,561	1,623	3.97%
C-Manufacturing industry	677	693	2.36%	1,022	1,046	2.35%
D-Production and supply of electricity, gas, steam and air conditioning	1,691	1,691	0.00%	2,642	2,641	-0.04%
E-Water supply; wastewa- ter disposal, waste man- agement and remediation activities	917	931	1.53%	1,400	1,422	1.57%
F-Construction	630	657	4.29%	951	994	4.52%
G-Wholesale and retail trade; repair of motor vehicles and motorcycles	694	712	2.59%	1,054	1,087	3.13%
H-Transport and storage	894	888	-0.67%	1,369	1,360	-0.66%
I-Accommodation and food service activities (hotels and restaurants)	545	521	-4.40%	824	788	-4.37%
J-Information and communications	1,363	1,399	2.64%	2,131	2,191	2.82%
K-Financial and insurance activities	1,652	1,655	0.18%	2,593	2,602	0.35%
L-Real estate business	839	805	-4.05%	1,293	1,241	-4.02%
M-Professional, scientific and technical activities	1,075	1,054	-1.95%	1,675	1,641	-2.03%
N-Administrative and support service activities	613	627	2.28%	934	957	2.46%
O-Public Administration and Defence; compulsory social insurance	1,323	1,356	2.49%	2,054	2,108	2.63%
P-Education	954	982	2.94%	1,475	1,518	2.92%
Q-Health and social work activities	1,284	1,335	3.97%	1,998	2,086	4.40%
R-Arts, entertainment and recreation	732	720	-1.64%	1,123	1,103	-1.78%
S-Other service activities	1,064	1,092	2.63%	1,648	1,683	2.12%
Total FBiH	928	956	3.02%	1,427	1,472	3.16%

³ Data of the Federation Office for Statistics

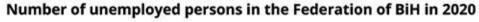


2. UNEMPLOYMENT IN THE FEDERATION OF BOSNIA AND HERZE-GOVINA IN 2020

In 2020, the long-term trend of decreasing unemployment in the Federation of Bosnia and Herzegovina from previous years came to a halt. The average number of unemployed persons in 2020 was 313,570; compared to the 2019 average (321,581), it is lower by 8,011, or 2.55%.

In 2020, in the Federation of BiH, out of the total average number (321,581) of unemployed persons, 187,365 were unemployed women, which is an increase of 5,370 or 2.90% compared to the previous year. Of the total number of unemployed persons in the Federation of BiH in 2019, men made up 42% and women 58%.

Figure 4: Number of unemployed persons in the Federation of BiH in 2020



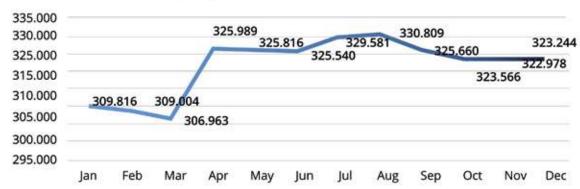


Table 4: Overview of basic unemployment indicators in the Federation of BiH in 2020

_ □	lable 4:: Overview of basic unemployment indicators in the Federation of BIH in 2020	Dasic urier	пріоуппенн	. Indicator	S In the re	geration	2 III DIG 10	020					
Ind	Indicator	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
←.	Number of employees	531,254	530,463	528,102	509,451	512,627	518,105	516,690	514,087	519,772	520,572	520,918	519,899
2.	Number of un- employed	309,816	309,004	306,963	325,989	325,816	325,540	329,581	330,809	325,660	323,566	322,978	323,244
2.1.	Women	179,953	179,394	178,565	190,162	189,445	192,448	191,736	192,679	189,323	188,305	188,198	188,169
'n	Professionals	212,007	211,290	209,688	225,603	225,559	225,911	230,184	231,658	227,149	225,468	224,964	224,996
4.	Unprofessional persons	608'26	97,714	97,275	100,386	100,257	99,629	99,397	99,151	98,511	860'86	98,014	98,248
5.	First time job seekers	113,112	112,349	110,663	102,052	100,058	103,873	106,692	104,688	104,102	105,820	105,010	104,146
9	Logged in	11,892	8,626	8,012	23,317	9,924	11,976	13,826	10,578	15,137	10,613	8,814	8,928
6.1.	Registered due to termination of employment	8,939	5,941	6,384	18,072	7,973	5,956	6,902	6,546	7,215	6,816	6,561	6,905
7.	Deleted from the records	9,940	9,438	10,053	4,291	10,097	12,252	9,785	9,350	20,275	12,707	9,402	8,662
7.1.	Deleted from the records due to employment	6,279	6,374	8,091	2,639	7,778	10,808	7,940	6,589	11,206	7,880	6,445	5,964
∞.	Beneficiaries of cash benefits	11,985	12,955	12,500	14,800	19,000	18,512	16,044	15,061	13,982	13,104	13,433	14,058
9.	Health insurance users	212,353	211,649	210,212	225,294	225,307	224,328	226,790	222,739	220,108	224,741	225,104	225,867
10.	Demobilized soldiers	40,927	40,776	40,579	41,331	40,914	41,173	40,957	40,518	40,213	40,506	40,459	40,618

According to the qualification structure of the registered unemployed persons, most are persons with three-year secondary education - skilled workers (32%), followed by non-qualified workers (29%) and persons with four-year secondary education (28%). Of the total number of the unemployed, persons with a university degree make up 8%.

The average number of unemployed professionals (VSS – higher education, VŠS – two-year post-secondary school education, SSS – secondary education, VKV – highly qualified worker, KV – qualified worker) in 2020 amounted to 222,873 and increased compared to 2019 by 9,001 or 4.2%. Also, in 2020, an average of 98,707 (32%) non-professional jobseekers (NSS – basic qualifications, NKV – non-qualified and PKV – semi-qualified) were registered; compared to 2019, that is a decrease by 1,051 or 1.05%.

In 2019, according to the age structure, the most numerous among the registered unemployed were persons aged between 30 and 49 (43%), followed by those over 50 (31%), and young people up to 30 (26%).

In accordance with the Law on Mediation in Employment and Social Security of Unemployed Persons and the Rulebook on Records in the Field of Employment, in 2020 in the Federation of BiH, 143,044 persons were registered in the records of employment services, which is 19,000 more compared to 2019. In the same period, on various grounds, 126,759 people were deregistered from the records of employment services in the Federation of BiH, which is 19,129 less than in 2019.

Also, in 2020, a total of 94,210 persons were deleted from the register of unemployed due to employment, while 87,993 persons included in the register upon termination of employment.

Table 5. Overview of basic indicators on changes in the records of unemployed persons in the Federation of BiH in 2020 (Source: Bulletin 12/20)

	regis- ploy-	eted	ns in upon ment		s for ter employr	mination of nent	records
Canton	Number of total new r trations in the unemp ment register	Number of persons deleted from the records	Number of registrations in unemployment records upon termination of employment	Bankruptcy, liquida- tion, restructuring, privatization	Technological or orga- nizational redundancy	Other (termination of a fixed-term contract, agreed termination of a contract, breach of duty, etc.)	Employed from the rec
Una-Sana	13,052	12,168	6,086	42	1,700	4,344	6,552
Posavina Canton	1,392	1,288	847	0	549	298	849
Tuzla Canton	29,865	26,952	19,402	247	4,786	14,369	18,642
Zenica-Doboj Canton	25,992	24,140	18,483	108	5,387	12,988	17,220
Bosnian-Podrinje	1,377	1,238	976	1	218	757	997
Central Bosnian	18,235	16,325	9,084	309	3,493	5,282	9,421
Herzegovinian-Neretva	15,412	12,466	9,811	350	5,026	4,435	8,805
West Herzegovina	4,151	3,389	2,701	51	1,454	1,196	2,397
Sarajevo	30,942	26,192	24,999	0	9,478	15,521	21,318
Canton 10	2,626	2,601	1,821	44	534	1,243	1,792
Federation of BiH	143,044	126,759	94,210	1,152	32,625	60,433	87,993

Table 6: Overview of the most numerous occupations by canton, education and gender (by 31 Dec 2020)

EN	MOW	0	0	0	0	0	166	_	_	87	58	4528	1309	696	13	
٦٧	\TOT	2091	805	749	692	611	230	186	137	102	92	4864	1368	1306	1271	
	KV I VKV	Salesman	Car mechanic	Tailor	Cook	Locksmith	Salesman	Locksmith	Auto mechanic	Hairdresser	Textile seamstress	Salesman	Hairdresser	Cook	Car mechanic	
EN	MOM	810	588	559	427	267	70	9/	78	20	44	1736	1903	1586	825	
` 7∀	\TOT	1126	939	884	663	909	111	106	97	68	9/	2380	2227	2067	2052	
EN	SSS	Economic techni- cian	High school grad- uate	Mechanical techni- cian	Nurse	Agricultural techni- cian	Commercialist	Nurse	Economist	Agricultural techni- cian	Administrative officer	High school grad- uate	Economic techni- cian	Nurse	Mechanical techni- cian	
	MOW	41	13	_	7	_∞	15	2	6	4	7	48	28	26	10	
7∀	\TOT	100	33	19	17	17	2	16	1	7	7	52	43	30	17	
	VŠS¹	Economist	Textile Technology Engineer	Nurse	Preschool teacher	Wood technology engineer	Economist	Computer scientist	Lawyer	Criminologist	Civil Engineer	Classroom teacher	Economist	Lawyer	Economic Officer	
EN	MOW	122	100	21	30	30	=	2	~	0	—	564	206	170	157	
٦٧	\TOT	240	203	125	77	92	18	6	7	7	7	770	829	191	171	
EN	VSS'	Economist	Lawyer	Nurse	English teacher	Food Technology Engineer	Economist	Lawyer	Professor of Physical and Health Education	Computer scientist	Civil Engineer	Economist	Lawyer	Teacher	Class teacher	
NO	ОТИАЭ		USC					٥) -) L			

	494 379) Economist	80 53	Economic techni- cian	2479	2031	Salesman	3290	2927
457 332	\sim 1	. Lawyer	34 26	High school grad- uate	1889	1354	Hairdresser	2060	1969
194 71		Preschool teacher	15 14	Mechanical technician	1045	449	Locksmith	1244	46
132 106		Mechanical Engineer	11 3	Nurse	962	758	Cook	1084	861
97 87		Civil engineer	10 6	Textile technician	477	415	Car mechanic	862	12
50 42		Preschool teacher	4	Economic techni- cian	143	66	Seller	144	127
30 20 1		Lawyer	1 0	Mechanical technician	122	26	Tailor	139	109
29 16 t		History and geography teacher	←	Agricultural techni- cian	118	89	Driver	71	7
13 9 C	O	Civil engineer	1 0	Administrative officer	103	59	Chemist	67	57
11 4 B	E A	Biology and chemistry teacher	←	Chemical technician	92	69	Hairdresser	63	49
165 91 E		Economist	281 185	High school graduate	1621	857	Seller	2594	1845
116 71 L		Lawyer	55 34	Economic techni- cian	1727	1287	Confectioner	292	485
43 23 C		Class teacher	33 15	Mechanical technician	845	422	Carpenter	382	62
45 21 E		Food Technology Engineer	32 8	Electrical technician	144	22	Locksmith	957	29
41 20 T		Traffic engineer	35 5	Medical technician	698	627	Locksmith	135	2

01	6	0	9(5	∞	7	m	\sim		26	Σ.	2		2	8	4	_		<u></u>
1601	849	510	196	155	978	317	23	43	0	2656	921	22	9	32	298	44	1	_	131
2005	901	864	197	168	1254	352	334	315	269	3169	866	941	835	298	370	211	165	162	142
Seller	Hairdresser for women	Cook	Tailor	Weaver	Merchant	Hairdresser	Locksmith	Metal worker	Car mechanic	Seller	Hairdresser	Driver	Car mechanic	Locksmith	Seller	Electro-me- chanic	Locksmith	Car mechanic	Chemical laboratory assistant
1238	1094	257	344	97	414	685	138	43	37	2334	1828	644	617	423	228	160	47	74	63
1813	1697	836	573	518	269	096	298	184	96	3506	2229	1712	746	713	382	191	125	105	82
Economic techni- cian	High school grad- uate	Mechanical techni- cian	Tourist animator	Electrical technician	High school grad- uate	Economist	Mechanical techni- cian	Electrical technician	Road traffic techni- cian	High school grad- uate	Economic techni- cian	Mechanical techni- cian	Textile technician	Graphic technician	High school grad- uate	Economic techni- cian	Mechanical techni- cian	Economist	Commercialist
162	106	73	20	25	125	32	21	31	16	129	80	37	21	1	23	10	9	4	4
238	172	73	59	57	177	44	25	31	19	199	103	39	22	22	31	13		∞	4
Economist	Lawyer	Preschool teacher	Computer scientist	Criminologist	Economist	Lawyer	Class teacher	Preschool teacher	Physical therapist	Economist	Lawyer	Preschool teacher	Classroom teacher	Civil engineer	Economist	Lawyer	Textile Technology Engineer	Agronomic engineer	Preschool teacher
279	165	135	77	79	136	89	14	41	28	926	885	228	351	249	39	23	35	25	23
367		1160	387	386	310	28	30	38	30	23									
Lawyer	Economist	English teacher	Agronomy engineer	Educator	Economist	Lawyer	Croatian language teacher	English teacher	Educator	Economist	Lawyer	Political scientist	Social worker	Journalist	Economist	Lawyer	Educator	Social worker	Teacher
		U H					WHC					S					C10		

¹Qualification: KV skilled worker (completed three years of high school), VKV highly qualified worker (completed three-year high school and master's exam), SSS secondary education (completed four-year high school), VŠS higher education (completed two-year university education), VSS university degree (completed university education)

Looking at the overview of the most numerous occupations by education on 31 December 2020 according to the records of the employment services in the Federation of BiH, economists and lawyers were the most numerous among persons with higher education, but they are also among the most numerous in the group of persons deleted from the records due to employment, while with the four-year secondary education, the most numerous are economic technicians and high school graduates. Among skilled workers, the most numerous are salesmen, hairdressers, car mechanics and drivers.



Table 7:								Year 2020.							
Basic indicators on the labour market in the Federation of BiH	Jan	Feb	Mar	Apr	Мау	unſ	luí	Aug	Sep	Oct	Nov	Dec	Ø2020	Ø2019	Ø2020 Ø2019
Total employees	531,254	530,463	528,102	509,451	512,627	518,105	516,690	514,087	519,772	520,572	520,918	519,899	520,162	531,483	-2.13%
Gross salary	1,477	1,436	1,457	1,446	1,438	1,469	1,498	1,462	1,480	1,481	1,489	1,532	1,472	1,427	3.16%
Net salary	958	934	947	940	935	953	971	949	961	961	996	993	926	928	2.98%
Unemployed Total	309,816	309,004	306,963	325,989	325,816	325,540	329,581	330,809	325,660	323,566	322,978	323,244	321,581	313,570	2.55%
Unemployed women	179,953	179,394	179,394 178,565	190,162	189,445	192,448	191,736	192,679	189,323	188,305	188,198	188,169	187,365	181,995	2.95%
Newly regis- tered Total	11,892	8,626	8,012	23,317	9,924	11,976	13,826	10,578	15,137	10,613	8,814	8,928	11,804	10,320	14.38%
Newly registered Women	5,580	4,015	3,941	13,386	5,060	9,207	7,412	5,385	7,070	5,362	4,515	4,127	6,255	4,971	25.83%
Registered upon termination of employment Total	8,939	5,941	6,384	18,072	7,973	5,956	6,902	6,546	7,215	6,816	6,561	906'9	7,851	6,858	14.48%
Registered upon termination of employment Women	4,119	2,667	3,144	10,190	3,973	3,026	3,790	3,419	3,585	3,401	3,280	3,100	3,975	3,223	23.32%
Deleted from the register Total	9,940	9,438	10,053	4,291	10,097	12,252	9,785	9,350	20,275	12,707	9,402	8,662	10,521	12,157	-13.46%
Deleted from the register Women	4,963	4,574	4,770	1,789	5,777	6,204	4,621	4,442	10,405	6,380	4,622	4,156	5,225	5,335	-2.06%
Deleted from the register due to employment Total	6,279	6,374	8,091	2,639	7,778	10,808	7,940	6,589	11,206	7,880	6,445	5,964	7,333	8,162	-10.16%

31 6.99%	594 -10.66%	83 -10.45%	22 -46.02%	1,322 -44.35%	349 34.75%	4,739 30.00%	465 4.11%	047 5.37%	2 -30.85%
06 3,931	047 118,694	53 79,683	09 3,722		520 10,849		208 212,465	330 117,047	472 682
39 4,206	146 106,	521 71,353	03 2,009	954 736	14,058 14,620	637 6,161	867 221,208	357 123,330	217
3,158 2,839	105,010 104,146 106,047	70,067 69,621	1,275 1,903	436	13,433 14,	6,224	225,104 225,867	126,010 126,357	336
3,912 3,1	105,820 105,	70,436 70,0	2,1 771,2	901	13,104 13	5,974 6	224,741 225	125,621 126,	356
6,519 3,9		69,584 70,	3,173 2,	1395	13,982 13	6,607	220,108 224	122,891 125	350
3,039	104,688 104,102	70,053 6	2,069	645	15,061	7,163	222,739 23	124,667 13	336
3,657	106,692 1	71,162	1,297	428	16,044	7,457	226,790	126,736 1	329
5,473	3,873	70,057	2,195	539	18,512	8,693	224,328	125,192	325
5,777	100,058	68,255	1,853	367	19,000	9,159	225,307	125,254	331
1,789	102,052	69,403	493	166	14,800	089'9	225,294	125,550	685
4,770	113,112 112,349 110,663 102,052 100,058 10	75,110	2,021	712	12,500	5,074	211,649 210,212	117,676 117,277 116,729 125,550 125,254	989
4,574	112,349	76,061	2,718	866	12,955	5,297		117,277	872
4,963	113,112	76,422	2,937	1287	11,985	4,963	212,353	117,676	836
Deleted from the register due to employment Women	Unemployed looking for a first time employment Total	Unemployed looking for a first time employment Women	Number of needed workers Total	Number of needed workers Women	Users of un- employment benefits Total	Users of unemployment benefits Women	Health insurance ance users Total	Health insurance users Women	Users of Pension and Disabil-



3. LABOUR MARKET SURVEY IN THE FEDERATION OF BOSNIA AND HERZEGOVINA 2020/2021

In accordance with Article 8 of the Law on Mediation in Employment and Social Security of Unemployed Persons ("Official Gazette of the Federation of BiH", No. 41/01, 22/05 and 9/08), labour market research in the Federation of BiH is conducted as a joint activity of the Federation Employment Service and cantonal employment services in order to obtain quantitative and qualitative data necessary to provide adequate information on labour market developments. In accordance with its competencies, the Federation Employment Service instructs the cantonal employment services to conduct labour market research, and, based on data collected, prepares appropriate information on the results of this activity at the level of the Federation of BiH. During the processing and preparation of information on the results of the research, the use of data from individual companies participating in this process was provided exclusively for the purpose of labour market research.

Through research on labour market trends, cantonal employment services and municipal employment offices establish direct cooperation with employers, create preconditions for strengthening their primary function of employment mediation and collect important data necessary for the improvement of their services.

3.1. Aim and assignments of the research

The aim of the research is to collect information directly from employers on business operation and changes in employment during 2020, business estimates, need to hire new or lay off existing workers in 2021, as well as their structure by occupations, qualifications, education and skills. Also, the aim is to collect other relevant data needed to assess trends in the labour market: how to look for new workers and address redundancies, the reaction of employers in terms of business during the COVID-19 pandemic, opportunities to organize vocational training for unemployed and secondary school and university student internships in the companies, as well as the assessment of the quality of the public employment services in the Federation of BiH from the perspective of employers.

3.2. Research methodology and sample

For the labour market surveys in the Federation of BiH 2020/2021, the methodology of last year's survey was used, and the Federation Employment Service, based on a master sample of about 10,000 employers obtained from the Tax Administration of the Federation of BiH by stratified random sampling, selected a sample used in previous years, which consists of 1,288 employers registered in the Federation of BiH with five (5) or more employees, sorted into small, medium and large employers by activities, which regularly pay mandatory taxes and contributions. The use of the identical sample enables a longitudinal analysis of the results and consideration of the consequences of the COVID-19 pandemic in the labour market. This sample size, with a reliability level of 95%, gives results within an error margin of 2.54%. In accordance with the practice of international organizations (ETF, CEDEFOP), the sample does not include employers in the following activities: agriculture, forestry and fishing, public administration and defence, education, health and social protection.

With the support of the EU-funded project "Improvement of Labour Market Research", training of labour market research coordinators and interviewers from the cantonal employment services was organized, as well as the development of a manual for coordinators and interviewers. An electronic questionnaire was used during the survey, and data were entered into the database with the use of computers or tablets (CAPI / TAPI - Computer / Tablet Assisted Personal Interviewing). The survey process, coordinated by the Federation Employment Service, was conducted by 90 interviewers in the cantonal employment services. Due to the COVID-19 pandemic, the survey was conducted by telephone. The questionnaire for employers used in the Federation of BiH

served as the basis for labour market research conducted simultaneously by the Employment Service of the Brčko District of BiH and the Employment Service of Republika Srpska. Data collection was organized through a survey of employers from the sample conducted by adequately trained employees of cantonal employment services in the period from 11 to 29 January 2021.

The questions in the questionnaire were divided into three thematic units:

- General data;
- Recruitment, training and estimates of redundancies;
- Cooperation with the Federation Employment Service and the competent cantonal employment service.

The questionnaire was filled in by 1,232 employers out of the planned 1,288, which is an extremely good response from 94.63% of contacted employers, and represents an increase of 8% compared to the previous survey.

Table 8: Overview of the number of surveyed employers

Canton	Planned	Imple- mented	%	Legal entities with expressed needs for workers in 2021	Legal entities without the need for work- ers
Una-Sana	132	94	71,21	44	50
Posavina Canton	27	28	103,70	15	13
Tuzla Canton	213	213	100,00	113	100
Zenica-Doboj Canton	188	181	96,28	104	77
Bosnian-Podrinje	16	16	100,00	12	4
Central Bosnian	139	117	84,17	60	57
Herzegovinian-Neretva	134	125	93,28	67	58
West Herzegovina	69	66	95,65	29	37
Sarajevo	335	358	106,87	164	194
Canton 10	35	34	97,14	31	3
Federation of BiH	1.288	1.232	94,83	639	593

Out of a total of 1,232 surveyed employers, 639 or 51.86% expressed a need for new workers in 2021, which is a decrease of 4.6% compared to the last year's results.

The survey was mostly answered by company owners (34%), followed by management staff and company accounting officers (25% each).

Table 9: Position of persons who answered the questions in the company

Canton	Owner	Management	Human resources	Accounting	Other
Una-Sana Canton	32	26	11	25	0
Posavina Canton	10	7	3	8	0
Tuzla canton	83	54	9	51	16
Zenica-Doboj Canton	62	36	20	49	14
Bosnian-Podrinje	2	3	7	4	0
Central Bosnian	31	24	14	44	4

Herzegovinian- Neretva	41	23	17	36	8
West Herzegovina	21	13	3	20	9
Sarajevo	128	106	48	55	21
Canton 10	8	13	0	10	3
Federation of BiH	418	305	132	302	75
%	34%	25%	11%	25%	6%

The largest number of companies in the sample are limited liability companies (80%), followed by crafts (11%).

Table 10: Structure of employers by the type of organization

Canton	ULC	LP	LLC	JV	PI	РС	AC	Crafts	Coo- per.	PHI	Bank
Una-Sana	4	0	68	3	2	3	0	14	0	0	0
Posavina Canton	0	0	24	0	0	1	0	3	0	0	0
Tuzla Canton	5	0	173	4	3	5	0	21	0	2	0
Zenica-Doboj Canton	1	0	140	4	3	2	2	27	0	2	0
Bosnian-Podrinje	0	0	10	4	1	1	0	0	0	0	0
Central Bosnian	1	0	99	3	1	0	0	12	0	1	0
Herzegovinian-Neretva	2	0	108	4	1	3	1	5	0	1	0
West Herzegovina	0	0	58	1	2	2	0	3	0	0	0
Sarajevo	4	1	275	12	3	0	6	53	1	2	1
Canton 10	0	0	31	0	1	0	0	1	0	1	0
Federation of BiH	17	1	986	35	17	17	9	139	1	9	1
%	1%	0%	80%	3%	1%	1%	1%	11%	0%	1%	0%

ULC – Company with unlimited joint and several liability

IP- Limited partnership

LLC- Limited Liability Company (d.o.o.)

IV- Joint Venture (d.d.)

PI- Public institution (JU)

PC- Public company (JP)

AC - Association of Citizens

Crafts - Crafts

Cooper. - Cooperative

PHI - Private health care institution

Bank - Bank

According to size, out of 1,232 employers covered by the survey, most are small and micro companies (81.41%) that employ up to 50 workers, followed by medium-sized companies (13.39%), while 5,19% were large employers, which employ over 250 workers - twice as much as in the previous survey.

This ratio of employers by size corresponds to the ratio of employers by size from the *master* sample.

Table 11: Sample by size of surveyed employers

Canton	Micro and small compa- nies - up to 50 workers	Medium-sized compa- nies - from 50 to 250 workers	Large companies - over 250 workers
Una-Sana Canton	81	12	1
Posavina Canton	22	4	2
Tuzla Canton	179	26	8
Zenica-Doboj Canton	143	27	11
Bosnian-Podrinje	12	0	4
Central Bosnian	87	19	11
Herzegovinian-Neretva	97	22	6
West Herzegovina	52	10	4
Sarajevo	302	39	17
Canton 10	28	6	0
Federation of BiH	1,003	165	64
%	81%	13%	5%

Observing the surveyed employers according to the duration of their existence, most of them are companies that have been operating for more than 20 years, 42%, followed by employers who have been operating between 11 and 20 years, 32%. Among the surveyed employers, 4% of companies have been operating for less than 3 years.

The average length of existence of the surveyed employer is 19 years.

Table 12: Length of existence of surveyed employers

Canton	Companies younger than 3 years	4-5 years	6-10 years	11-20 years	Companies older than 20 years
Una-Sana Canton	10	5	12	32	35
Posavina Canton	0	1	2	13	12
Tuzla Canton	9	15	25	60	104
Zenica-Doboj Canton	10	14	23	66	68
Bosnian-Podrinje	0	1	0	10	5
Central Bosnian	5	6	14	39	53
Herzegovinian-Neretva	2	7	15	34	67
West Herzegovina	2	4	6	18	36
Sarajevo	11	31	83	117	116
Canton 10	1	3	3	11	16
Federation of BiH	50	87	183	400	512
%	4%	7%	15%	32%	42%

At the time of the survey, the employers employed 75,100 employees, which was 14.4% of the total number of employees in the Federation of BiH on 31 December 2020 (520,493). Of these, 54% were men and 46% were women.

Most workers were employed with the employers from Sarajevo Canton - 8,773, followed by Tuzla Canton - 6,010 and Zenica-Doboj Canton - 5,645.

 Table 13: Overview of the number of employees when surveyed by type of employment

contract								
Canton	Full time contract	Fixed-term contract	Trainees	Vocational training	Temporary and occa- sional jobs	Service contract	Total employees	Of which older than 60 years
Una-Sana	1.771	641	3	11	2	6	2.434	1
Posavina Canton	915	468	0	0	0	2	1.385	32
Tuzla Canton	12.505	3.713	10	31	0	26	16.285	319
Zenica-Doboj Canton	7.657	3.828	24	22	1	33	11.565	374
Bosnian-Podrinje Canton	1.763	737	53	1	0	31	2.585	53
Central Bosnian Canton	7.430	3.692	2	12	0	1	11.137	121
Herzegovini- an-Neretva	5.382	1.241	26	3	1	9	6.662	254
West Herzegovina Canton	3.045	805	2	0	25	21	3.898	91
Sarajevo Canton	11.992	6.183	37	38	31	38	18.319	585
Canton 10	593	237	0	0	0	0	830	22
Federation of BiH	53.053	21.545	157	118	60	167	75.100	1.852
%	70,40%	28,59%	0,21%	0,16%	0,08%	0,22%	100,00%	2,46%

Out of a total of 75,100 employees, 333 employers (27% of respondents) stated that they had 1,852 employees over the age of 60 or 2.4% of the total employees of all surveyed employers, whose jobs will be vacated in the period up to five (5) years.

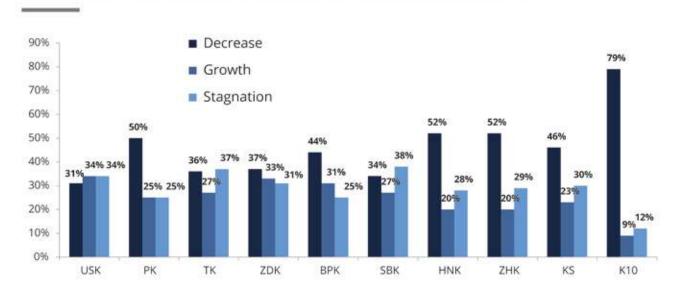
According to the type of employment contract with the surveyed employers, most employees had a fixed-term contract 53,053 (70%) of which 60% were men and 40% women, while 21,545 (29 %%) persons had a fixed-term contract, 57% men and 43% women.

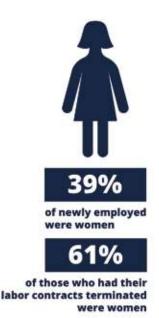
A total of 157 trainees were hired, and 167 people had a service contract with the surveyed employers.



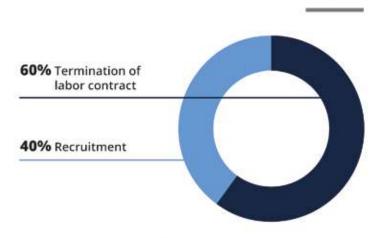
YEAR 2020 (in retrospect)

ASSESSMENT OF FINANCIAL EFFECTS ON BUSINESS BY CANTON



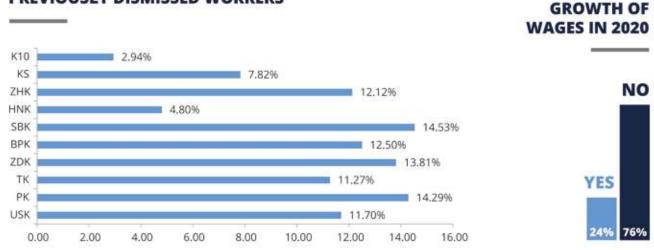


CHANGES IN THE NUMBER OF WORKERS IN 2020



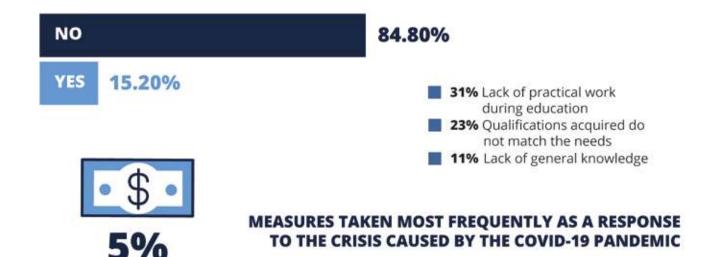
4,076 workers employed in the surveyed companies, 6,058 employment contracts terminated

% OF EMPLOYERS WHO REINSTATED THEIR PREVIOUSLY DISMISSED WORKERS



YEAR 2020 (in retrospect)

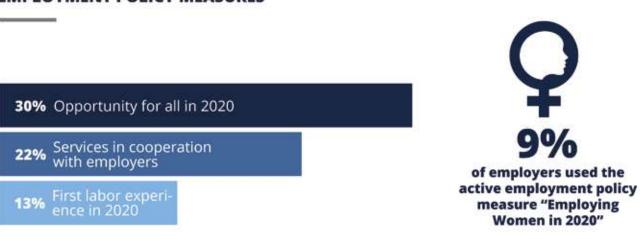
ARE YOU SATISFIED WITH THE QUALITY OF QUALIFICATIONS, KNOWLEDGE AND SKILLS OF THE WORKERS?





MOST FREQUENTLY USED ACTIVE EMPLOYMENT POLICY MEASURES

of employees reduced their workers' wages



4. BUSINESS TRENDS AND CHANGES IN THE NUMBER OF WORKERS IN 2020

4.1. Business volume and financial effects in 2020

A total of 1,210 employers or 98% of surveyed employers answered the question about the volume of business in 2020.

Growth in production, sales and services was recorded by 26% of employers in the sample, 37% less than in the previous year's survey. A stagnation of business volume was recorded by 32%, while a decline was recorded by 43% of employers, which is an increase of 35% compared to the previous year's survey.

At the cantonal level, as many as 79% of employers in Canton 10 reported a decline in business volume, followed by the Herzegovina-Neretva and West Herzegovina cantons with 52% of employers. When it comes to business growth, the best result was recorded in Una-Sana and Zenica-Doboj Canton, where only 34% and 33% of employers respectively said that they recorded an increase in business volume in 2020.

Table 14: Estimation of business volume (production, sales, services) in 2020

Canton	Total	Decrease	%	Increase	%	Stagnation	%
Una-Sana	93	29	31%	32	34%	32	34%
Posavina Canton	28	14	50%	7	25%	7	25%
Tuzla Canton	211	76	36%	57	27%	78	37%
Zenica-Doboj Canton	178	65	37%	58	33%	55	31%
Bosnian-Podrinje Canton	16	7	44%	5	31%	4	25%
Central Bosnian Canton	117	40	34%	32	27%	45	38%
Herzegovini- an-Neretva	125	65	52%	25	20%	35	28%
West Herzegovina Canton	66	34	52%	13	20%	19	29%
Sarajevo Canton	342	159	46%	80	23%	103	30%
Canton 10	34	27	79%	3	9%	4	12%
Federation of BiH	1.210	516	43%	312	26%	382	32%

When it comes to assessing the financial effects of businesses in 2020 at the level of the Federation of BiH, the majority of employers (43%) stated that they had a decrease, which represents an increase of 34% compared to the previous year and corresponds to data from business volumes; all indications show a deterioration and destabilization of large-scale economic opportunities. Only 24% of employers had an increase in financial effects, which is a decrease of 39%.

This question was answered by 1,207 employers or 98% of the sample.

Table 15: Estimation of financial effects of business operations in 2020

				•			
Canton	Total	Decrease	%	Increase	%	Stagnation	%
Una-Sana	93	30	32%	29	31%	34	0,37
Posavina Canton	28	14	50%	7	25%	7	0,25
Tuzla Canton	211	78	37%	53	25%	80	0,38
Zenica-Doboj Canton	177	68	38%	53	30%	56	0,32
Bosnian-Podrinje Canton	16	7	44%	6	38%	3	0,19
Central Bosnian Canton	116	38	33%	30	26%	48	0,41
Herzegovini- an-Neretva	125	65	52%	25	20%	35	0,28
West Herzegovina Canton	65	32	49%	9	14%	24	0,37
Sarajevo Canton	342	156	46%	72	21%	114	0,33
Canton 10	34	27	79%	3	9%	4	0,12
Federation of BiH	1.207	515	43%	287	24%	405	34%

At the cantonal level, as many as 79% of employers in Canton 10 reported a decline in financial effects in 2020. Only 38% of employers in the Bosnian-Podrinje Canton, as the largest share of respondents at the cantonal level, stated that they had an increase in financial effects.

Changes in the number of workers in 2020 4.2.

In 2020, employers reported 10,134 changes in the number of employees, most of which were related to the termination of employment contracts (60%) and the employment of workers (40%), which is inversely proportional to the data from the previous year.

Table 16: Changes in the number of employees in 2020

	nəmoW lstoT	278	230	200	476	174	1250	296	48	1073	22	4,553	45%
	zəgnedə letoT	562	337	1291	887	394	2355	1154	345	2735	74	10,134	100%
	иәшом	159	152	449	261	97	849	188	35	295	14	2,766	159
act	Total – termina- tion of employ- ment contract	278	208	818	532	268	1507	638	225	1540	44	6,058	278
Termination of employment contract	мотеп	0	0	0	2	0	259	0	0	0	7	271	%9
ploymer	Other	4	0	13	14	0	383	2	2	\sim	6	433	4%
on of em	иәшоМ	3	0	13	7	_	18	10	0	14	0	99	1%
erminati	Retired	12	0	34	16	9	29	28	—	29	—	194	7%
ř	иәшоМ	156	152	436	249	96	572	178	35	548	7	2,429	53%
	bessimsiQ	262	208	771	205	262	1095	909	222	1470	34	5,431	54%
	иәшом	119	78	257	215	77	401	108	13	511	∞	1,787	39%
	Employed	284	129	473	355	126	848	516	120	1195	30	4.076	40%
	Canton	Una-Sana Canton	Posavina Canton	Tuzla Canton	Zenica-Doboj Canton	Bosnian-Podrinje Canton	Central Bosnian Canton	Herzegovinian-Neretva	West Herzegovina Canton	Sarajevo Canton	Canton 10	Federation of BiH	% of the total number of changes

A negative ratio between the total number of employees and the total number of workers whose employment contracts were terminated in 2020 was recorded in almost all cantons. The only exception, with a minimal positive ratio, was recorded in Una-Sana Canton.

There are almost 2,000 more terminations in relation to new employments, which was not recorded in the previous multi-year research of this type, which indicates the extent of problems in the economy and labour market caused by the COVID-19 pandemic.

Table 17: Changes in the number of employees in 2020

Canton	Em- ployed	Women	Terminat- ed em- ployment contract	Women	Difference (employees - terminated employment con- tract)- Total	Women
Una-Sana Canton	284	119	278	159	6	-40
Posavina Canton	129	78	208	152	-79	-74
Tuzla Canton	473	257	818	449	-345	-192
Zenica-Doboj Canton	355	215	532	261	-177	-46
Bosnian-Podrinje Canton	126	77	268	97	-142	-20
Central Bosnian Canton	848	401	1507	849	-659	-448
Herzegovinian-Neretva	516	108	638	188	-122	-80
West Herzegovina Canton	120	13	225	35	-105	-22
Sarajevo Canton	1195	511	1540	562	-345	-51
Canton 10	30	8	44	14	-14	-6
Federation of BiH	4,076	1,787	6,058	2766	-1,982	-979
%	40%	39%	60%	61%	-	-

Also, 10% of employers stated that they were informed that workers whose employment contracts had been terminated in 2020 left Bosnia and Herzegovina. Most of them were in Sarajevo Canton (26) and Zenica-Doboj Canton (24).

Table 18: Answers of employers on whether workers left BiH upon termination of their employment contracts

ment contracts	1		1	
Canton	Yes	No	I dont know	Total
Una-Sana Canton	11	45	38	94
Posavina Canton	9	9	10	28
Tuzla Canton	18	99	96	213
Zenica-Doboj Canton	24	71	86	181
Bosnian-Podrinje Canton	2	9	5	16
Central Bosnian Canton	14	58	45	117
Herzegovinian-Neretva	9	59	57	125
West Herzegovina Canton	9	25	32	66
Sarajevo Canton	26	124	208	358
Canton 10	7	15	12	34
Federation of BiH	129	514	589	1.232
%	10%	42%	48%	100%

After the state of natural disaster was no longer in force, as of 30 June 2020, and there came to a certain stabilization of opportunities during the summer season, some employers re-hired workers who were previously dismissed due to the COVID-19 pandemic and worsening economic conditions.

Only 10% of employers stated that they had re-employed the workers they previously dismissed.

Table 19: Number of employers who returned previously dismissed workers to work

Canton	Yes	No	No answer	Total
Una-Sana Canton	11	45	38	94
Posavina Canton	4	14	10	28
Tuzla Canton	24	92	97	213
Zenica-Doboj Canton	25	72	84	181
Bosnian-Podrinje Canton	2	9	5	16
Central Bosnian Canton	17	55	45	117
Herzegovinian-Neretva	6	59	60	125
West Herzegovina Canton	8	26	32	66
Sarajevo Canton	28	113	217	358
Canton 10	1	20	13	34
Federation of BiH	126	505	601	1,232
%	10%	41%	49%	100%

Having in mind wages as one of the important motivating factors on the labour market, the cause of leaving or accepting certain jobs, but also a factor that is one of the first to be affected in crisis situations, employers answered the question regarding wage growth in 2020.

A total of 1,173 employers or 95% of the respondents answered this question. Of that, 24% stated that they had a wage increase, mostly an increase of 10% compared to the previous year, and 76% of employers had no increases in wages.

Table 20: Wage growth in 2020

Canton	Yes	Up to 10%	Up to 20%	More than 20%	No	Total
Una-Sana Canton	17	13	3	1	0	17
Posavina Canton	14	9	2	2	77	91
Tuzla Canton	44	43	1	0	14	58
Zenica-Doboj Canton	49	45	4	0	164	213
Bosnian-Podrinje Canton	5	4	1	0	128	133
Central Bosnian Canton	31	24	2	4	11	42
Herzegovinian-Neretva	24	21	2	0	85	109
West Herzegovina Canton	16	13	3	0	101	117
Sarajevo Canton	78	62	13	1	49	127
Canton 10	8	7	1	0	258	266
Federation of BiH	286	241	32	8	887	1,173
%	24%	21%	3%	1%	76%	100%

According to industries, the largest growth of wages in 2020 (33%) was recorded in industry C - Manufacturing, and in industry G - Trade (23%).

Table 21: Number of employers with wage growth in 2020 by industries

	-			_	_			-							
Canton	В	С	D	Е	F	G	Н	ı	J	L	М	N	R	S	Ukupno
Una-Sana	0	7	0	0	0	2	1	2	2	0	2	1	0	0	17
Posavina Canton	0	7	0	0	0	5	0	2	0	0	0	0	0	0	14
Tuzla Canton	1	15	0	2	7	10	1	1	1	0	3	0	1	2	44
Zenica-Doboj Canton	0	18	1	0	6	7	4	2	1	1	7	1	0	1	49
Bosnian-Podrinje Canton	0	3	0	0	0	1	0	1	0	0	0	0	0	0	5
Central Bosnian Canton	1	14	0	1	4	7	0	3	0	0	0	1	0	0	31
Herzegovinian-Neretva	1	9	0	0	2	7	1	0	3	0	0	0	0	1	24
West Herzegovina Canton	0	5	0	1	3	4	0	1	0	0	2	0	0	0	16
Sarajevo Canton	0	14	0	0	11	21	3	1	9	1	12	3	0	3	78
Canton 10	0	3	0	0	1	2	1	0	0	0	1	0	0	0	8
Federation of BiH	3	95	1	4	34	66	11	13	16	2	27	6	1	7	286
%	1%	33%	0%	1%	12%	23%	4%	5%	6%	1%	9%	2%	0%	2%	100%

F – Construction L - Real estate activities B – Mining C - Manufacturing industry G - Trade M- Professional, scientific and technical activities D – Production and supply H – Traffic, storage of electricity N – Administrative and support I - Catering service activities E - Water supply J - Information and communica-R - Arts, entertainment and tion recreation

According to the size of the companies, in relation to the number of employers with reported wage growth, this indicator records mainly growth in micro and small companies (74%), but in relation to the total number of surveyed companies of this size, only 21% showed wage increase, while 38 % of large companies recorded a wage growth.

S – Other service activities

Table 22. Number of employers with wage growth in 2020 by company size

Canton	Micro and small companies - up to 50 workers	Medium-sized com- panies - from 50 to 250 workers	Large companies - over 250 workers
Una-Sana Canton	14	2	1
Posavina Canton	9	4	1
Tuzla Canton	33	7	4
Zenica-Doboj Canton	34	11	4
Bosnian-Podrinje Canton	4	0	1
Central Bosnian Canton	16	10	5
Herzegovinian-Neretva	20	4	0
West Herzegovina Canton	9	4	3
Sarajevo Canton	66	7	5
Canton 10	6	2	0
Federation of BiH	211	51	24
%	74%	18%	8%

4.3. (Dis)satisfaction with the quality of knowledge and skills of workers

Just over 15% of employers said they were not satisfied with the quality of qualifications, knowledge and skills of their employees.

Table 23: Satisfaction with the quality of qualifications, knowledge and skills of workers with whom employers had the opportunity to cooperate

Canton	YES	NO
Una-Sana	79	14
Posavina Canton	21	7
Tuzla Canton	194	15
Zenica-Doboj Canton	150	28
Bosnian-Podrinje Canton	13	3
Central Bosnian Canton	87	27
Herzegovinian-Neretva	109	15
West Herzegovina Canton	60	5
Sarajevo Canton	277	62
Canton 10	27	6
Federation of BiH	1.017	182
%	85%	15%

As a reason for dissatisfaction with the quality of qualifications, knowledge and skills of candidates, the employers point out the lack of practical work during education (31%), as well as the fact that the acquired qualifications of candidates do not meet the needs of employers (23%).

Table 24: Reasons for dissatisfaction with the quality of qualifications, knowledge and skills of workers

Canton	01	02	О3	04	O5	O6	07	O8
Una-Sana	7	11	5	1	3	6	5	0
Posavina Canton	5	6	2	0	0	0	0	0
Tuzla Canton	7	13	4	0	2	8	3	1
Zenica-Doboj Canton	14	23	10	3	3	8	3	3
Bosnian-Podrinje Canton	1	2	1	0	1	0	0	0
Central Bosnian Canton	19	23	10	3	2	7	8	0
Herzegovinian-Neretva	5	10	4	1	3	2	4	2
West Herzegovina Canton	4	3	0	0	0	0	0	1
Sarajevo Canton	32	36	10	3	3	7	12	28
Canton 10	4	6	2	3	4	4	0	0
Federation of BiH	98	133	48	14	21	42	35	35
%	23%	31%	11%	3%	5%	10%	8%	8%

O1 Acquired qualifications do not meet the needs

O2 Lack of practical work during education

O3 Nedostatak opšteg znanja

O4 Lack of IT skills

O5 Lack of knowledge of foreign languages

O6 Lack of organizational skills

O7 Lack of social skills

O8 Other

Employers also point out the lack of motivation, initiative and work habits, and lack of interest in further education of workers.

4.4. Response to the crisis caused by the COVID-19 pandemic

In response to the crisis caused by the COVID-19 pandemic, through the possibility of multiple choice of options offered, employers stated that they mostly applied part-time work (21%).

A total of 16% of employers opted for the introduction of shift work. There is a significant share of those who stated that they did not take any measures (15%).

As many as 12% stated that they had had a temporary suspension of business, and 1% that they stopped working completely.

 Table 25: Overview of measures in response to the crisis caused by the COVID 19 pandemic

Canton	01	02	03	04	05	06	07	08	00	010	011
Canton	01	UZ	03	04	US	06	07	Uo	09	010	011
Una-Sana	37	10	20	7	13	3	11	16	1	18	2
Posavina Canton	14	4	10	1	4	1	1	3	1	6	0
Tuzla Canton	40	10	30	10	25	4	12	34	1	95	10
Zenica-Doboj Canton	71	32	42	8	22	17	8	28	3	46	18
Bosnian-Podrinje Canton	6	4	3	1	3	0	2	3	0	6	1
Central Bosnian Canton	36	6	27	11	9	8	8	15	1	28	10
Herzegovinian-Neretva	53	26	50	11	17	6	1	36	1	14	7
West Herzegovina Canton	35	16	15	11	9	4	5	20	3	6	4
Sarajevo Canton	99	105	92	25	37	20	8	61	4	60	51
Canton 10	16	7	20	2	6	3	3	9	0	4	4
Federation of BiH	407	220	309	87	145	66	59	225	15	283	107
%	21%	11%	16%	5%	8%	3%	3%	12%	1%	15%	6%

O1 Reduction of working hours O6 Improving online sales
O2 Transition to work from O7 Deferment of debt repayment
O3 Introduction of shift work O8 Suspension

O3 Introduction of shift work O8 Suspension
O4 Wage reduction O9 Complete closu

O4 Wage reduction O9 Complete closure
O5 Dismissal of workers O10 No action taken

O11 Other

As other measures, employers pointed out, among other things:

- Establishment of COVID teams or crisis headquarters;
- oenabling work so that physical distance is maintained (placement in business premises),
- · use of disinfectants and wearing masks;
- regular testing of workers on SARS Cov 2;
- · sending workers on annual leave;
- · introduction of meetings via internet platforms;
- Use of credit funds of the Development Bank, etc.

According to the results of the survey, 25% of surveyed employers used the measures of active employment policy in 2020, which were implemented by the Federation Employment Serviceand the cantonal employment services.

4.5. Use of active employment policy measures

Out of a total of 1,232 surveyed employers, 308 (25%) used active employment policy measures, mostly incentives based on the measure Opportunity for All 2020 (30%), then the measure Service in cooperation with employers 2020 (22%), and the First Work Experience 2020 intended for young people persons without work experience (13%), and the measure Employment of Women 2020 (9%).

Table 26: Overview of measures / programs used by employers in 2020

Canton	01	02	О3	04	O 5	О6	07	О8	О9	O10	011	O12	Total
Una-Sana Canton	0	8	1	0	1	2	1	1	0	2	1	0	17
Posavina Canton	0	7	0	0	0	1	1	1	0	2	0	0	12
Tuzla Canton	4	11	3	0	0	2	1	2	1	3	0	2	29
Zenica-Doboj Canton	6	18	3	0	0	5	3	6	0	15	0	5	61
Bosnian-Podrinje Canton	1	2	3	0	0	0	0	0	0	7	0	1	14
Central Bosnian Canton	1	7	5	0	0	6	1	2	0	7	0	2	31
Herzegovini- an-Neretva	6	3	1	1	0	0	1	1	2	8	0	1	24
West Herzegovina Canton	3	6	0	1	0	2	3	0	0	6	0	0	21
Sarajevo Canton	17	29	0	1	1	9	2	4	0	3	0	10	76
Canton 10	1	2	2	0	0	1	3	0	0	14	0	0	23
Federation of BiH	39	93	18	3	2	28	16	17	3	67	1	21	308
%	13%	30%	6%	1%	1%	9%	5%	6%	1%	22%	0%	7%	100%

O1 First work experience 2020 O7 New of

O7 New opportunity 2020

O2 Opportunity for all 2020

O8 Looking for an employer 2020

O9 Recruitment of demobilized

combatants

O3 Periodic employment 2020

O10 Service in cooperation with

O4 Contribution 500 2020

employers 2020

O5 Public works 2020

O11 Training and work

O6 Employment of women 2020

O12 Other

Based on these measures, employers employed 807 people in 2020, of which 32% were employed under the measure Opportunity for All 2020, followed by: Service in Cooperation with Employers 2020 (21%), First Work Experience 2020 (12 %) and Periodic Employment 2020 (10%).

Table 27: Overview of the number of persons employed through measures / programs used by employers in 2020

Canton	01	02	О3	04	O 5	О6	07	О8	09	O10	011	O12	Total
Una-Sana Canton	0	5	1	0	3	1	1	0	0	6	0	0	17
Posavina Canton	0	14	0	0	0	5	0	5	0	13	0	0	37
Tuzla Canton	2	69	22	0	0	2	0	5	1	7	0	2	110
Zenica-Doboj Canton	18	51	4	0	0	30	8	11	0	34	0	14	170

Bosnian-Podrinje Canton	2	6	22	0	0	0	0	0	0	31	0	1	62
Central Bosnian Canton	0	49	16	0	0	6	1	5	0	17	0	2	96
Herzegovini- an-Neretva	16	8	3	0	0	0	20	1	17	8	0	8	81
West Herzegovina Canton	3	16	0	2	0	3	3	0	0	12	0	0	39
Sarajevo Canton	51	35	0	1	8	16	4	5	0	6	0	10	136
Canton 10	1	2	12	0	0	1	5	0	0	38	0	0	59
Federation of BiH	93	255	80	3	11	64	42	32	18	172	0	37	807
%	12%	32%	10%	0%	1%	8%	5%	4%	2%	21%	0%	5%	100%

O1 First work experience 2020

O7 New opportunity 2020

O2 Opportunity for all 2020

O8 Looking for an employer 2020

O3 Periodic employment 2020

O9 Recruitment of demobilized

combatants

O4 Contribution 500 2020

O10 Service in cooperation with

employers 2020

O5 Public works 2020

O11 Training and work

O6 Employment of women 2020

O12 Other

Within the research, 250 or 20% of all surveyed employers participated in the implementation of active employment policy measures, and they assessed aspects of employer participation in these measures with ratings ranging from 1 (completely dissatisfied) to 5 (completely satisfied). The general rating of satisfaction with the programs / measures is 4.53, which can be considered a considerably good in the observed time context.

Table 28: Average assessment of individual aspects of active employment policy measures

Canton	01	02	О3	04	O5	O6
Una-Sana Canton	4,53	4,87	4,67	4,87	4,33	4,53
Posavina Canton	4,89	4,78	4,78	5,00	4,67	4,89
Tuzla Canton	4,31	4,42	4,32	4,19	3,80	4,20
Zenica-Doboj Canton	3,76	4,14	3,65	4,08	3,39	3,92
Bosnian-Podrinje Canton	4,92	4,92	4,92	5,00	4,92	4,92
Central Bosnian Canton	4,17	4,04	3,96	4,18	3,92	4,17
Herzegovinian-Neretva	4,11	4,50	4,39	4,65	4,59	4,41
West Herzegovina Canton	3,63	4,13	4,13	4,00	3,56	3,94
Sarajevo Canton	4,39	4,46	4,12	4,15	4,12	4,24
Canton 10	4,63	3,81	3,69	4,50	3,88	3,94
Federation of BiH	4,33	4,41	4,26	4,46	4,12	4,32

O1 Application procedure

ing (

O2 Duration of the employment co-financing period

O4 Manner of justifying funds
O5 Execution of contractual obl

O3 Amount of subsidy

O5 Execution of contractual obligations - from FZZ / Service

O6 Overall assessment of satisfaction with the program / measures

Out of a total of 308 or 25% employers who participated in the implementation of active employment policy measures, 79% assessed their general satisfaction with these measures as 4 (satisfied) or 5 (completely satisfied).

Table 29: Participation of employers who rated certain aspects of active employment policy measures with 4 (satisfied) and 5 (completely satisfied)

·		1 /			l	
Canton	01	02	О3	04	O5	O6
Una-Sana Canton	93%	100%	93%	100%	80%	93%
Posavina Canton	100%	89%	100%	100%	89%	100%
Tuzla Canton	88%	96%	92%	85%	73%	85%
Zenica-Doboj Canton	66%	82%	60%	74%	54%	68%
Bosnian-Podrinje Canton	100%	100%	100%	100%	100%	100%
Central Bosnian Canton	67%	67%	59%	70%	74%	70%
Herzegovinian-Neretva	79%	89%	79%	89%	79%	74%
West Herzegovina Canton	69%	81%	75%	75%	63%	81%
Sarajevo Canton	88%	90%	80%	75%	71%	81%
Canton 10	94%	65%	65%	88%	59%	71%
Federation of BiH	81%	85%	76%	81%	70%	79%

O1 Application procedure

O2 Duration of the employment co-financing period

O3 Amount of subsidy

O4 Manner of justifying funds

O5 Execution of contractual obligations - from FZZ / Service

O6 Overall assessment of satisfaction with the program / measures

Also, of those who did not participate in the implementation of active employment policy measures / programs, 42% of answers stated that employers did not consider the option to use ALM programs and measures, while as many as 27% failed to apply for participation in measures for technical reasons.

Table 30: Main reasons for not using active employment policy measures

Canton	01	O2	О3	O4	Total
Una-Sana Canton	4	37	19	17	77
Posavina Canton	0	8	10	1	19
Tuzla Canton	15	84	59	9	167
Zenica-Doboj Canton	14	70	29	28	141
Bosnian-Podrinje Canton	0	0	0	4	4
Central Bosnian Canton	17	38	22	17	94
Herzegovinian-Neretva	4	32	63	5	104
West Herzegovina Canton	3	30	7	8	48
Sarajevo Canton	51	99	46	95	291
Canton 10	0	6	4	3	13
Federation of BiH	108	404	259	187	958
% of the total respondents	11%	42%	27%	20%	100%

O1 We had no information on ALM programs and measures

O2 We have not considered using ALM programs and measures

O3 We were unable to apply for technical reasons

O4 Other

Under the option other, employers mostly stated:

- they did not have the need to employ workers;;
- uncertainty and withdrawal of incentives due to the consequences of the COVID-19 pandemic;
- unavailability of public calls at a time when they needed workers;
- they have no need for incentives;
- they do not meet the requirements, etc.





5. CURRENT LACK OF WORKERS AND NEED FOR TRAINING

During the survey, 301 employers (24% of respondents) stated that at the time of the survey there was a shortage of workers of a certain profile or problems in hiring workers.

Table 31: Number of employers with expressed needs for hiring new workers at the time of the survey

Canton	Number of surveyed employers	Number of employers with expressed needs at the time of the survey	% in relation to the total num- ber of respon- dents in FBiH	% in relation to the total num- ber of respon- dents in the canton
Una-Sana Canton	94	22	7%	23%
Posavina Canton	28	10	3%	36%
Tuzla Canton	213	52	17%	24%
Zenica-Doboj Canton	181	48	16%	27%
Bosnian-Podrinje Canton	16	3	1%	19%
Central Bosnian Canton	117	27	9%	23%
Herzegovinian-Neretva	125	25	8%	20%
West Herzegovina Canton	66	11	4%	17%
Sarajevo Canton	358	86	29%	24%
Canton 10	34	17	6%	50%
Federation of BiH	1.232	301	24%	

Despite the large number of registered unemployed persons of different qualifications, employers still point out certain problems when finding new workers. This chapter presents answers related to the reasons that make it difficult for employers to find adequate workers.

It was a question with a scale from 1 (strongly disagree) to 5 (strongly agree) and multiple choice of answers offered, which were divided into two categories:

- factors related to the society
- · Factors related to individuals.

Table 32: The most significant reasons for the lack of workers of certain profiles

Ţ.	Fa	ctors r		to the ociety		Facto	rs rela	ted to 1	he indi	vidual	
Canton		O2	O3	04	O5	O6		08	O9	O10	O11
Una-Sana Canton	3,07	3,88	3,59	2,57	3,67	3,85	3,41	2,53	2,31	1,54	1,92
Posavina Canton	3,00	3,90	4,22	3,11	4,00	3,80	3,80	3,80	3,30	3,11	2,89
Tuzla Canton	3,06	3,43	3,29	2,86	3,66	3,73	3,61	3,34	2,82	2,32	2,52
Zenica-Doboj Canton	3,21	3,44	3,15	2,59	3,42	3,54	3,42	3,21	2,74	2,69	2,39
Bosnian-Podrinje Canton	2,33	2,33	3,67	2,33	3,67	3,00	2,33	2,33	2,33	3,00	2,33
Central Bosnian Canton	3,83	4,15	4,08	3,50	4,59	4,27	4,31	4,21	2,80	2,50	2,67
Herzegovinian-Neretva	2,60	3,55	3,33	2,00	3,80	4,00	4,00	3,06	2,46	2,80	2,88
West Herzegovina Canton	2,29	3,00	2,88	2,43	4,36	4,60	4,70	3,75	2,29	2,57	1,71
Sarajevo Canton	2,89	3,47	3,57	2,77	3,71	3,80	3,65	3,29	2,70	2,59	2,37
Canton 10	3,50	4,50	3,88	2,47	4,56	4,44	4,44	3,13	2,75	2,38	1,63
Federation of BiH	2,98	3,56	3,56	2,66	3,94	3,90	3,77	3,27	2,65	2,55	2,33

O1 – Lack of incentives	O5 – Lack of staff with the required occupation	O9 – Dissatisfaction of the candidate with the offered height of wages
O2 – Tax policy (high allocations)	O6 – Lack of staff with knowledge and skills needed for the job	O10 – Candidate dissatisfaction with working hours and working conditions
O3 – General economic conditions	O7 – Lack of staff with appropriate work experience	O11 – Distance of the job from the place of residence of the candidate
O4 – Insufficient labour force information	O8 – Individual lack of interest in working in a specific job	

When it comes to social factors, as a significant reason that affects the shortage of workers, employers mostly point out high allocations for taxes and contributions and general economic conditions, with an average score of 3.56, which is 0.51 more than the previous year.

When it comes to factors related to the individual, most employers cite the lack of staff with the required occupation with an average grade of 3.94 and the lack of staff with knowledge and skills required for the job with a score of 3.90, which is an increase for 0.36 compared to the previous year and which indicates a chronic problem of mismatch between supply and demand in the labour market.

In addition to the above, as limiting factors related to the individual, employers point out: lack of necessary work experience (3.77 - an increase of 0.39 compared to the previous year) and lack of interest of individuals to work in a particular job (3.27).

Employers expressed their greatest dissatisfaction with job candidates due to the lack of technical - professional knowledge and skills, and the lack of initiative and creativity of job candidates.

Employers also point out dissatisfaction with the lack of IT, organizational, analytical and planning skills among job candidates.

Table 33: Reasons for dissatisfaction with the quality of qualifications, professional knowledge and skills of job candidates

and skins of job	carraraa							
Canton	01	02	О3	04	O5	O6	07	O8
Una-Sana	4,20	3,36	3,27	3,55	2,82	3,43	3,53	3,50
Posavina Canton	3,70	2,50	3,00	2,00	3,00	3,50	3,00	-
Tuzla Canton	3,31	2,30	2,64	2,65	2,71	2,74	3,00	2,50
Zenica-Doboj Canton	3,43	2,67	2,74	3,00	2,81	2,77	2,82	2,94
Bosnian-Podrinje Canton	2,33	2,33	2,33	2,33	2,33	2,33	2,33	2,33
Central Bosnian Canton	4,19	3,50	3,70	3,22	3,56	3,33	4,00	1,67
Herzegovinian-Neretva	3,81	3,29	3,09	3,40	3,45	3,31	3,22	-
West Herzegovina Canton	4,10	2,89	2,13	2,25	2,38	2,13	2,70	2,00
Sarajevo Canton	3,41	2,79	2,41	2,55	2,61	2,65	2,89	2,33
Canton 10	4,31	3,38	3,31	3,31	3,31	2,25	3,13	3,67
Federation of BiH	3,68	2,90	2,86	2,83	2,90	2,84	3,06	2,62

O1 – Lack of technical-professional knowledge and skills

O2 – Lack of computer skills and IT skills

O3 – Lack of foreign language skills

O4 – Lack of Project management skills

O5 – Lack of organizational, analytical and planning skills

O6 - Lack of social skills (communication, teamwork, negotiation, empathy)

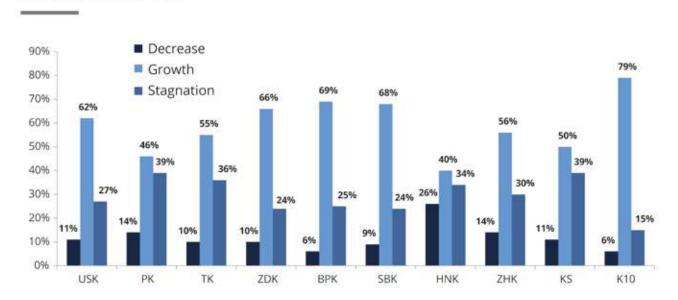
O7 – Initiative and creativity

O8 - Other

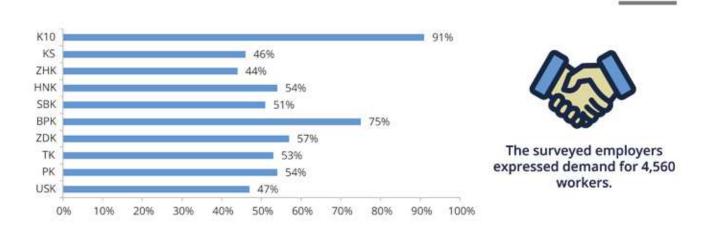


YEAR 2021 (projections)

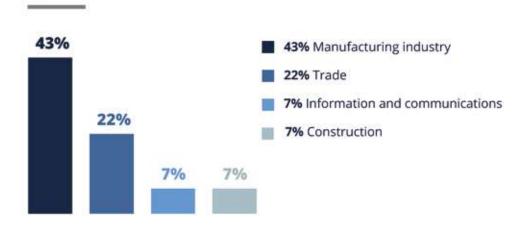
ASSESSMENT OF FINANCIAL EFFECTS ON BUSINESS BY CANTON IN 2021



% OF EMPLOYERS THAT EXPRESSED THE NEED TO EMPLOY NEW WORKERS IN 2021



% OF WORKERS IN DEMAND BY INDUSTRY



YEAR 2021 (projections)

READINESS ON THE PART OF THE EMPLOYERS TO EMPLOY WORKERS FROM SOME OF THE CATEGORIES OF HARDER TO EMPLOY WORKERS (%)

22%

Youth with no work experience

20%

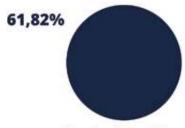
Women

17%

Persons above 40 years of age 32%

of employers in Sarajevo Canton are ready to employ workers from some of the harder to employ categories

MANNER OF RESOLVING REDUNDANCIES (%)



Termination of labor

12,73%

Redeployment on another job with the same employer 7,27%

Reduction of working hours 7,27%

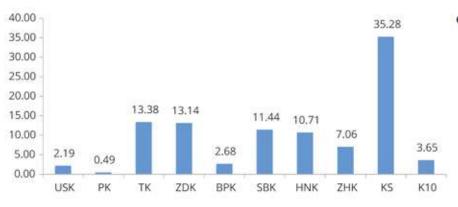


Cooperation with cantonal employment services

NEEDS FOR ADDITIONAL TRAINING OF WORKERS ON THE PART OF THE EMPLOYERS THAT ARE PLANNING TO INTRODUCE NEW TECHNOLOGIES (%)



45%



of employers in FBiH are ready to offer training for specific tasks during working hours



21%

of employers at the level of FBiH are ready to offer training for the unemployed

6. BUSINESS ASSESSMENT IN 2021

6.1. Estimation of business volume and financial effects of business operation and estimation of wage growth in 2021

A total of 1,195 employers or 97% of surveyed employers answered the question about the assessment of the volume of business in 2021.

Growth in production, sales and services is planned by 57% of employers in the sample, which indicates optimism, i.e. the expectation and hope of the employer that the business environment will improve. Stagnation of business volume is expected by 31%, while a decline is expected by 12% of employers.

At the cantonal level, the growth of production, sales and services is most expected by employers in Canton 10 (79%) and Bosnia-Podrinje Canton (75% of employers), and Zenica-Doboj and Central Bosnia Cantons (67%).

Table 34: Estimation of business volume (production, sales, services) in 2021

Canton	Total	Decline	%	Growth	%	Stagnation	%
Una-Sana Canton	82	10	12%	52	63%	20	24%
Posavina Canton	28	4	14%	13	46%	11	39%
Tuzla Canton	211	20	9%	116	55%	75	36%
Zenica-Doboj Canton	177	18	10%	119	67%	40	23%
Bosnian-Podrinje Canton	16	1	6%	12	75%	3	19%
Central Bosnian Canton	116	10	9%	78	67%	28	24%
Herzegovinian-Neretva	125	32	26%	52	42%	41	33%
West Herzegovina Canton	66	8	12%	38	58%	20	30%
Sarajevo Canton	340	35	10%	174	51%	131	39%
Canton 10	34	2	6%	27	79%	5	15%
Federation of BiH	1.195	140	12%	681	57%	374	31%

When it comes to assessing the financial effects of business in 2021, at the level of the Federation of BiH, the majority of employers (56%) stated growth, and 32% of employers stated stagnation. Only 12% of employers expect a decline in financial effects in 2021.

The question was answered by 1,196 employers or 97% of the sample.

Table 35: Estimation of financial effects of business operations in 2021

Table 99. Estimation of infantial effects of Sasiness operations in 2021							
Canton	Total	Decline	%	Growth	%	Stagnation	%
Una-Sana	82	9	11%	51	62%	22	27%
Posavina Canton	28	4	14%	13	46%	11	39%
Tuzla Canton	211	21	10%	115	55%	75	36%
Zenica-Doboj Canton	177	18	10%	117	66%	42	24%
Bosnian-Podrinje Canton	16	1	6%	11	69%	4	25%
Central Bosnian Canton	117	10	9%	79	68%	28	24%
Herzegovinian-Neretva	124	32	26%	50	40%	42	34%
West Herzegovina Canton	66	9	14%	37	56%	20	30%
Sarajevo Canton	341	38	11%	171	50%	132	39%
Canton 10	34	2	6%	27	79%	5	15%
Federation of BiH	1.196	144	12%	671	56%	381	32%

At the cantonal level, the growth of financial effects of business is most expected in Canton 10 (79% of employers) and Bosnia-Podrinje Canton (69% of employers), and Central Bosnia (68%) and Zenica-Doboj Canton (66%).

Having in mind wages as one of the important motivating factors in the labour market, the reason for leaving or accepting certain jobs, but also one of the first factors to be affected in crisis situations, employers answered the question related to wage growth assessment in 2021.

Thus, 1,184 employers or 96% of respondents answered this question. Of these, 43% said they estimated wage growth at 10% compared to the previous year, while 57% of employers did not expect wage growth. Out of the total number of respondents per canton, 68% of the surveyed employers from Canton 10 stated that they would increase wages in 2021, followed by 57% of the surveyed employers from Posavina and 53% of the surveyed employers from Zenica-Doboj Canton.

Table 36: Estimated wage growth in 2021

Canton	YES	Up to 10%	Up to 20%	More than 20%	NO	Total
Una-Sana	36	29	4	1	58	94
Posavina Canton	16	13	2	1	12	28
Tuzla Canton	90	87	3	0	120	210
Zenica-Doboj Canton	95	88	7	0	81	176
Bosnian-Podrinje Canton	11	11	0	0	5	16
Central Bosnian Canton	55	45	9	1	60	115
Herzegovinian-Neretva	36	31	4	0	88	124
West Herzegovina Canton	26	25	1	0	36	62
Sarajevo Canton	125	106	16	1	200	325
Canton 10	23	16	7	0	11	34
Federation of BiH	513	451	53	4	671	1.184
%	43%	38%	4%	0%	57%	100%

Looking at sectors, wage growth is expected in 2021 in the first place in sectors C - Manufacturing (32%), and G - Trade (22%).



Table 37: Number of employers with an estimate of wage growth in 2021 by sectors

Canton	В	U	٥	ш	ш	ט	I	_	_	×	_	Σ	z	~	S	Total
Una-Sana Canton	2	11	0	0	_	∞	-	9	2	0	0	4	0	_	0	36
Posavina Canton	0	∞	0	0	0	2	0	7	_	0	0	0	0	0	0	16
Tuzla Canton	m	35	0	—	4	15	7	10	—	0	0	∞	_	2	33	06
Zenica-Doboj Canton	0	30	_	2	13	19	10	2	7	0	0	10	—	0	2	95
Bosnian-Podrinje Canton	0	9	0	0	—	7	0	—	0	0	0	_	0	0	0	1
Central Bosnian Canton	—	26	0	_	2	10	3	7	0	0	0	0	_	~	0	55
Herzegovinian-Neretva	—	12	0	0	4	∞	ĸ	7	3	0	0	0	7	0	_	36
West Herzegovina Canton	0	2	0	0	c	6	7	m	0	0	0	7	0	2	0	26
Sarajevo Canton	0	22	0	0	4	33	2	4	12	—	—	13	9	0	4	125
Canton 10	0	10	0	0	_	2	7	m	_	0	0	_	0	0	0	23
Federation of BiH	7	165	_	4	46	114	33	53	22	_	_	39	1	9	10	513
%	1%	32%	%0	1%	%6	22%	%9	10%	4%	%0	%0	%8	7%	1%	7%	100%

B – Mining	F – Construction	L – Real estate activities
C – Manufacturing industry	G - Trade	M- Professional, scientific and
D - Production and supply of	H – Traffic, storage	tecnnical activities
electricity	I – Catering	N – Administrative and support service activities
E – Water supply	J – Information and communication	R – Arts, entertainment and recreation

	and		pport	þı	10
L – Real estate activities	M- Professional, scientific and	technical activities	N – Administrative and support service activities	R – Arts, entertainment and recreation	S – Other service activities
F – Construction	G - Trade	H – Traffic, storage	I – Catering	J – Information and communication	K- Financial activities and insurance

According to the size of the companies, micro and small companies (77%) dominate among employers who estimated wage growth. In relation to the total number of surveyed micro and small companies, the share of these companies with planned wage growth is 39%, while 52% of the total number of surveyed large companies indicated that they planned salary growth.

Table 38: Number of employers with estimated wage growth in 2021 by company size

Canton	Micro and small companies - up to 50 workers	Medium-sized companies - from 50 to 250 workers	Large companies - over 250 workers
Una-Sana Canton	33	2	1
Posavina Canton	11	4	1
Tuzla Canton	74	13	3
Zenica-Doboj Canton	70	18	7
Bosnian-Podrinje Canton	8	0	3
Central Bosnian Canton	34	12	9
Herzegovinian-Neretva	27	8	1
West Herzegovina Canton	19	6	1
Sarajevo Canton	98	20	7
Canton 10	20	3	0
Federation of BiH	394	86	33
%	77%	17%	6%



7. EMPLOYMENT AND TRAINING NEEDS IN 2021

The need for employment in 2021 was expressed by 639 surveyed employers, 52% of the total respondents. These employers expressed the need to employ 4,728 workers in 2020, of which 66% refers to new jobs and 34% to vacant positions.

7.1. Expressed employment needs in 2021 by sectors

Out of a total of 1,232 surveyed employers, 639 or 52% expressed an estimate of the need to employ 4,560 workers in 2021 (which is 168 or 3.5% less than last year's survey), of which 3,012 (66%) are estimated to refer to newly created, and 1,548 (34%) to vacant positions.

These data indicate that employers have certain degree of optimism about the stabilization of opportunities in the economy in the coming period.

The largest number of employers with estimated employment needs in 2021, in relation to the number of total surveyed employers in the Federation of BiH, come from the Sarajevo Canton (13%), followed by Tuzla and Zenica-Doboj Cantons. Also, the largest number of wanted workers is in these cantons.

The largest number of employers with expressed employment needs in relation to the number of total surveyed employers in the canton was recorded in Canton 10 (91%) and Bosnia-Podrinje Canton (75%).

Table 39: Number of employers which expressed needs for hiring new workers in 2021

Canton	Number of surveyed employers	Employers with expressed needs	% in relation to the total number of respondents in FBiH	% in relation to the total number of respondents in the canton	Newly-created jobs	Vacant positions	Total number of workers required
Una-Sana Canton	94	44	4%	47%	90	104	194
Posavina Canton	28	15	1%	54%	161	46	207
Tuzla Canton	213	113	9%	53%	631	355	986
Zenica-Doboj Canton	181	104	8%	57%	644	233	877
Bosnian-Podrinje Canton	16	12	1%	75%	26	93	119
Central Bosnian Canton	117	60	5%	51%	290	140	430
Herzegovinian-Neretva	125	67	5%	54%	351	56	407
West Herzegovina Canton	66	29	2%	44%	54	12	66
Sarajevo Canton	358	164	13%	46%	660	476	1.136
Canton 10	34	31	3%	91%	105	33	138
Federation of BiH	1.232	639	52%		3.012	1.548	4.560

The greatest needs for new employment, 43%, were expressed in the manufacturing industry, which is 4% more than in the last year's research.

It is followed by the needs in the Trade sector, with 22%, and the Information and communication sector, with 7%, where a significant increase was recorded from the last year's 90 to 336 estimated needs for workers.

Table 40: Number of required workers according to the estimate of employers in 2021 by sectors

Canton	В	С	D	Е	F	G	Н	ı	J	K	L	М	N	R	S	Total
Una-Sana Canton	4	73	0	4	24	16	0	35	18	0	0	5	0	11	4	194
Posavina Canton	0	118	0	0	0	81	0	6	0	0	0	0	2	0	0	207
Tuzla Canton	100	377	0	0	54	337	33	43	2	0	10	10	2	15	3	986
Zenica-Doboj Canton	0	596	8	16	72	86	28	25	10	0	0	27	4	0	5	877
Bosnian-Podrinje Canton	0	87	0	1	21	3	0	2	0	0	0	1	4	0	0	119
Central Bosnian Canton	0	278	0	3	25	72	13	24	5	0	0	0	10	0	0	430
Herzegovinian-Neretva	2	166	0	1	12	177	4	10	20	0	2	1	8	1	3	407
West Herzegovina Canton	0	17	0	2	6	21	0	6	1	0	0	11	0	2	0	66
Sarajevo Canton	0	146	0	0	95	206	24	48	278	40	40	73	172	0	14	1.136
Canton 10	0	87	0	0	3	21	6	15	2	0	0	1	0	3	0	138
Federation of BiH	106	1.945	8	27	312	1.020	108	214	336	40	52	129	202	32	29	4.560
%	2%	43%	0%	1%	7%	22%	2%	5%	7%	1%	1%	3%	4%	1%	1%	100%

B - Mining

F – Construction

C – Manufacturing industry G - Trade

... _ ...

D – Production and supply H – Traffic, storage

of electricity

I - Catering

E – Water supply

J – Information and communication

K – Financial activities and

insurance

L – Real estate activities

M- Professional, scientific and technical activities

N – Administrative and support service activities

R – Arts, entertainment and recreation

S - Other service activities

According to the size of the company, out of a total of 4,560 workers estimated to be needed by the surveyed in 2021, 36% refers to the needs of large companies, followed by micro and small companies (35%) and medium-sized companies (29%).

Table 41: Number of required workers according to employers estimates in 2021 according to

company size			
Canton	Micro and small companies - up to 50 workers	Medium-sized companies - from 50 to 250 workers	Large companies - over 250 workers
Una-Sana	131	33	30
Posavina Canton	23	114	70
Tuzla Canton	246	186	554
Zenica-Doboj Canton	213	300	364
Bosnian-Podrinje Canton	44	0	75
Central Bosnian Canton	235	97	98
Herzegovinian-Neretva	132	191	84
West Herzegovina Canton	59	7	0
Sarajevo Canton	427	332	377
Canton 10	67	71	0
Federation of BiH	1.577	1.331	1.652
%	35%	29%	36%

7.2. Expressed needs for employment in 2021 according to education and occupation

According to education, the surveyed employers expressed the greatest needs for workers with three-year secondary education (skilled workers), namely 62%. This is followed by the demand for workers of four-year secondary education (secondary school qualifications) - 16%, and for employees with higher education (university level qualifications) - 13%.

Table 42: Expressed needs for workers in 2021 according to education

-		_			
Canton	Unqualified, primary school level qualifications, semi- qualified	Qualified, highly qualified	Secondary school qualifica- tions	Univer- sity level qualifica- tions	Total
Una-Sana Canton	41	71	56	26	194
Posavina Canton	4	140	57	6	207
Tuzla Canton	84	770	110	22	986
Zenica-Doboj Canton	79	669	94	34	876
Bosnian-Podrinje Canton	11	20	86	2	119
Central Bosnian Canton	65	357	5	3	430
Herzegovinian-Neretva	87	206	67	47	407
West Herzegovina Canton	0	25	34	7	66
Sarajevo Canton	67	451	191	427	1.136

Canton 10	9	110	7	12	138
Federation of BiH	447	2.819	707	586	4.560
%	9%	62%	16%	13%	100%

As in the previous years, it was confirmed that there is a high demand among surveyed employers for workers with three-year secondary education (by 5% higher compared to 2019/2020), as well as the demand for employees with higher education (4% more compared to research from the previous year). Demand for persons with four-year secondary education decreased by 8%.

According to the expressed needs of the surveyed employers, in 2021 salespersons-traders will be the most sought-after workers compared to the previous year. This occupation takes the first position, while last year it was seamstress, which now occupies the second position in terms of the number of the needs expressed by the surveyed employers.

Although, due to the consequences of the COVID-19 pandemic, the catering and hotel sector suffered great consequences, according to the results of this research, waiters and cooks are still among the occupations with strong demand from employers in the Federation of BiH.

Also, employers showed great demand for drivers, locksmiths, shoemakers, welders, security guards, carpenters, butchers, call centre operators and confectioners, and there was a demand for 240 (auxiliary) workers for simple jobs.

Table 43: Overview of the five (5) occupations with the highest expressed demand by cantons

No.	each 1	10		each 10	each 1	40	m	33		each 3
Occupation 5	Accountant Veterinarian Commercial- ist	Construction technician		Locksmith Waiter	Architect Lawyer Veterinarian	Confectioner	Civil engineer	Sales- man-trader Mason		Baker Mason Carpenter
No.	2	[12	7	42	po 4	37		4
Occupation 4	Mechanical Engineer	Mason Operator of sanding and polishing machines for wood		Carpenter	Commercialist	Locksmith	Economist, Commercialist	Driver		Secuirty guard
No.	2	8		22	7	20	2	44		4
Occupation 3	Civil engineer	Mechanical technician	Graphic designer	Truck driver	Road traffic engineer	Shoemaker	Mechanical Engineer	Welder		Truck driver
No.	6	22	7	20	_	210	2	26	—	35
Occupation 2	Designer	Cook	Economist	Salesman- merchant	Mechanical Engineer	Tailor	Electrical engi- neer	Locksmith	Technological engineer	Presser
No.	6	25	m	70	∞	266	9	231	—	40
Canton Qualification Occupation 1 No. Occupation 2 No. Occupation 3	Developer	Waiter	Electrical engineer	Leather seamstress	Economist	Seller	Computer sci- entist	Leather seamstress	Civil engineer	Apparatus
Qualification¹	VSS, VŠS	SSS, KV	VSS, VŠS	SSS, KV	VSS, VŠS	SSS, KV	VSS, VŠS	SSS, KV	VSS, VŠS	SSS, KV
Canton		OSC	Ç	<u>,</u>	TC			ZDC		BPC

	each 21	each 2	10		4		25	~	each 4
	Waiter Carpenter	Civil engineer Electrical engineer	Seamstress		Waiter	Mechanical Engineer	Electrical Appliance Repairer	Marketing Manager	Installer Forest Tractor Driver
	po 22	4	15	—	4	13	po 35	—	po 4
	Mason Operator of sanding and polishing machines for wood	Commercialist	Cook	Accoun- tant-leader	Construction machine oper- ator	Economist	Waiter Butcher Carpenter Call centar operater	Commercialist	Baker Mason Carpenter Truck driver
	26	2	15	—	5	20	40	—	73
	Driver	Mechanical engineer	Galvanizer	Journalist	Operator of a machine for making plastic products	Architect	Security guard	Accountant	Cook
	30	0	20	7	10	30	51	2	20
	Machine tool server	Economist	Waiter	Image and sound editor	Presser	Civil engineer	Truck driver	Master of pharmacy	Waiter
~	77	15	97	7	20	99	176	7	36
Technological engineer	Shoemaker	Computer scientist	Salesman-trader	Civil engineer	Auto mechanic	IT developer, Developer	Seller	Developer	Seller
VSS, VŠS	SSS, KV	VSS, VŠS	SSS, KV	VSS, VŠS	SSS, KV	VSS, VŠS	SSS, KV	VSS, VŠS	SSS, KV
	CBC	H			ZHK		Σ		K10

¹Qualification: NK/NSS/NKV (unqualified, primary school level qualifications, semi-qualified), KV/VKV (qualified, highly qualified), SSS (secondary school qualifications), VSS/VŠS (University level qualifications)

For occupations with university education, the greatest demand is for workers in the IT field and this confirms the growth in the number of employees in Information and Communication throughout 2020, a year marked by the COVID-19 pandemic, all due to increased digitalization of business processes and of the strengthening of the presence of information technology in society in general.

This is followed by the expressed demand for architects, electrical engineers, mechanical and civil engineers and economists.

Regarding the willingness of employers to hire unemployed person from one of the harder-to-employ or specific categories, with the possibility of multiple-choice answers, the largest number expressed willingness to employ young people without work experience (22%), followed by women (20%), those older than 40 (17%), demobilized soldiers and unskilled workers (9% each) and persons with disabilities (6%). The highest demand and readiness of employers for employment in all categories was recorded in the Sarajevo Canton (32%)

Table 44: Willingness of employers to hire some of the harder-to-employ categories of workers

			1				_		1	
Canton	01	02	03	04	O5	O6	07	08	09	O10
Una-Sana Canton	6	6	5	2	20	36	40	35	16	1
Posavina Canton	2	3	0	6	9	14	21	16	12	6
Tuzla Canton	15	19	19	21	36	58	68	48	37	5
Zenica-Doboj Canton	21	12	10	19	44	89	102	65	24	6
Bosnian-Podrinje Canton	4	3	4	2	3	11	13	7	3	0
Central Bosnian Canton	5	6	4	6	18	56	69	46	25	2
Herzegovinian-Neretva Canton	24	11	14	6	28	61	60	53	29	5
West Herzegovina Canton	12	9	2	3	9	43	41	35	17	1
Sarajevo Canton	61	64	91	66	71	164	159	142	68	17
Canton 10	7	8	8	6	12	24	27	25	13	0
Federation of BiH	157	141	157	137	250	556	600	472	244	43
%	6%	5%	6%	5%	9%	20%	22%	17%	9%	2%

O1 People with disabilities	O6 Women
O2 Victims of violence	O7 Young persons without work experience
O3 People from the orphanage	O8 Persons older than 40
O4 Members of the Roma population	O9 Unskilled workers
O5 Demobilized fighters	O10 Immigrants (legal immigrants with the necessary documents)

7.3. Expected redundancies in 2021

According to the answers of the surveyed employers, the expected redundancy of workers in 2021 is not a matter for concern.

Table 45: Expected redundancies

Canton	Occupation	Qualification ¹	No.	Reason
	Waiter	KV	9	Reducing the volume of business
Una-Sana Canton	Salesman-trader	KV	5	Reducing the volume of business
Posavina Canton	Designer	SSS	4	Reducing the volume of business
	Mechanical tech- nician	SSS	2	Reducing the volume of business
Tuzla Canton	Cook	KV	1	Reducing the volume of business
Tuzia Caritori	Baker	KV	2	Reducing the volume of business
	Salesman-trader	KV	3	Reducing the volume of business
	Mechanic	KV		Reducing the volume of business
Zenica-Doboj Canton	Tailor	KV		Change in the business system
	Butcher	KV	2	Reducing the volume of business
Bosnian-Podrinje Canton	Tailor	KV	80	Reducing the volume of business
	Truck driver	KV	4	Reducing the volume of business
	Tailor	KV	2	Change in the business system
	Electrical technician	SSS	1	Closing the company
	Facade master	KV	2	Completion of seasonal work
	Worker for sim- ple jobs	NKV	2	Change in the business system
Central Bosnian Canton	Carpenter	KV	2	Completion of seasonal work
	Mechanic	KV	1	Reducing the volume of business
	Shoemaker	KV	5	Reducing the volume of business
	Tailor	KV	4	Change in the business system
	Butcher	KV	2	Reducing the volume of business
	Salesman-trader	KV	1	Reducing the volume of business
	Economist	VSS	1	Closing the company
Herzegovinian-Neretva Canton	Seller	KV	3	Reducing the volume of business
West Herzegovina	Administrator	VSS	1	Reducing the volume of business
Canton	Car paint	KV	1	Reducing the volume of business
	Beautician	SSS	3	Because of the epidemic
	Waiter	KV	3	Reducing the volume of business
	Cook	KV	1	Reducing the volume of business
	Locksmith	KV	2	Reducing the volume of business
	Seller	KV	2	Reducing the volume of business
	Hairdresser	KV	1	Reducing the volume of business
Sarajevo Canton	Electrician	KV	1	Reducing the volume of business
	Administrative worker	SSS	4	Reducing the volume of business
	IT service	SSS	1	Reducing the volume of business
	Marketing expert	VSS	1	Change in the business system
	Production work- er	NK	1	Reducing the volume of business
	Bookkeeping worker	SSS	1	Reducing the volume of business
	Accountant	VSS	1	Change in the business system
Canton 10	Production work- er	NK	1	Reducing the volume of business

¹Qualification: NK/NSS/NKV (unqualified, primary school level qualifications, semi-qualified), KV/VKV (qualified, highly qualified), SSS (secondary school qualifications), VSS/VŠS (University level qualifications)

The following is an overview of the number of employers who indicated how they deal with redundancies.

Table 46: Number of employers by way of resolving redundancies

Tubic 40. Humber of empi		,					
Canton	Relocation to another job with the same employer	Relocation of workers to another organizational unit with the same employer	Training, additional training, retraining	Shortening working hours	Cooperation with cantonal employment services	Termination of employment contract	Other
Una-Sana Canton	2	0	0	1	2	3	0
Posavina Canton	0	0	0	0	0	2	0
Tuzla Canton	0	0	0	0	0	2	0
Zenica-Doboj Canton	1	0	1	1	0	2	0
Bosnian-Podrinje Canton	0	0	0	0	0	1	0
Central Bosnian Canton	1	0	0	1	1	6	0
Herzegovinian-Neretva Canton	1	0	0	1	1	0	0
West Herzegovina Canton	0	0	0	0	0	2	0
Sarajevo Canton	1	2	0	0	0	15	2
Canton 10	1	1	0	0	0	1	0
Federation of BiH	7	3	1	4	4	34	2

7.4. Needs for additional training of workers and the possibility of organizing practical classes for students and training for the unemployed

The need for additional training of workers in accordance with their plans for the introduction of new technologies in the work process, i.e. changes in technology and work organization, was stated by 411 employers (33% of respondents), 328 less than last year.

Table 47: Needs for additional training and qualification of workers for employers who plan to introduce new technologies in the work process

Canton	01	02	О3	04	O5	06	Ukupno
Una-Sana Canton	2	1	0	6	0	0	9
Posavina Canton	0	0	0	1	1	0	2
Tuzla Canton	9	4	6	25	11	0	55
Zenica-Doboj Canton	10	6	8	23	6	1	54
Bosnian-Podrinje Canton	1	1	1	6	2	0	11
Central Bosnian Canton	8	2	4	27	5	1	47
Herzegovinian-Neretva Canton	4	2	6	18	11	3	44
West Herzegovina Canton	6	3	4	13	3	0	29
Sarajevo Canton	23	9	17	60	27	9	145
Canton 10	3	1	4	4	2	1	15
Federation of BiH	66	29	50	183	68	15	411
%	16%	7%	12%	45%	17%	4%	100%

O1 – Acquisition of special skills in a verified institution - computer work)

O2 – Acquisition of special skills in a verified institution - foreign languages

O3 – Acquisition of special skills in a verified institution - project management

O4 – Training for specific jobs within the workplace

O5 – Additional training and retraining within a verified institution

O6- Other

The majority of employers stated the need for additional training of workers to perform specific jobs within the workplace (45%). A large number of employers stated the need for additional training or retraining (17%), while the need for training in the field of IT was expressed by 16% of employers.

In the context of the possibility of supporting the organization of practical classes, 433 employers or 35% of the total respondents stated that they had opportunities (mentor, equipment, space and materials) and were ready to accept students for practical classes, mostly for the following occupations: economist, waiter, cook, salesman, car mechanic, locksmith, seamstress, administrative worker, driver, veterinarian, reinforcement worker, economic technician and cashier.

Table 48: Number of employers willing to offer practical training for pupils and students in 2021

Canton	Number of employers
Una-Sana Canton	22
Posavina Canton	13
Tuzla Canton	55
Zenica-Doboj Canton	71
Bosnian-Podrinje Canton	10
Central Bosnian Canton	51
Herzegovinian-Neretva Canton	33
West Herzegovina Canton	25
Sarajevo Canton	132
Canton 10	21
Federation of BiH	433
%	35%

The following is an overview of the occupations for which the employers are willing to provide practical training.

Table 49: Occupations for which employers are willing to offer practical training by cantons

Canton	Occupation 1	Occupation 2	Occupation 3	Occupation 4	Occupation 5
Una-Sana Canton	Waiter	Cook	Seller - trader	Veterinarian	
Posavina Canton	Waiter	Seller - trader	Economic technician	Cook	Cashier
Tuzla Canton	Auto mechanic	Waiter	Locksmith	Seller - trader	
Zenica-Doboj Canton	Cook	Waiter	Tailor	Locksmith	
Bosnian-Podrinje Canton	Waiter	Cook	Passenger car driver	Reinforcer	
Central Bosnian Canton	Cook	Economic technician	Waiter	Auto mechanic	
Herzegovinian- Neretva Canton	Waiter	Economist	Cook	Seller - trader	
West Herzegovina Canton	Waiter	Cook	Auto mechanic	Economist	
Sarajevo Canton	Economist	Cook	Waiter	Baker	
Canton 10	Waiter	Cook	Administrative worker	Economist	

For this purpose, 119 or 29% of employers are willing to offer reimbursement between 100 and 200 KM, and 19% reimbursement between 200 and 300 KM.

Less than 10% of employers are willing to offer an amount higher than 300 KM and a fee for food and insurance.

Table 50: The amount of reimbursement that employers are willing to offer to students in practical classes

Canton	0 KM	up to 100 KM	100-200 KM	200-300 KM	Other
Una-Sana Canton	3	5	7	5	2
Posavina Canton	3	6	1	3	0
Tuzla Canton	21	17	10	4	2
Zenica-Doboj Canton	17	26	18	7	1
Bosnian-Podrinje Canton	2	0	6	2	0
Central Bosnian Canton	5	14	18	7	3
Herzegovinian-Neretva Canton	6	1	5	10	8
West Herzegovina Canton	5	5	5	8	1
Sarajevo Canton	23	19	42	25	15
Canton 10	1	0	7	6	7
Federation of BiH	86	93	119	77	39
%	21%	22%	29%	19%	9%

Also, in the context of adult training, 243 employers or 20% of the total respondents stated that they had opportunities and were ready to organize training, vocational training and development of unemployed persons.

Employers have mostly pointed out the possibility of providing training for unemployed people for the following occupations: economist, waiter, cook, salesman, car mechanic, mechatronics - CNS operator, computer scientist, electrician, hairdresser, carpenter, seamstress, locksmith, administrative worker.

Table 51: Number of employers willing to provide training for unemployed persons (mentor, equipment) in 2021

Canton	YES
Una-Sana Canton	6
Posavina Canton	1
Tuzla Canton	41
Zenica-Doboj Canton	42
Bosnian-Podrinje Canton	7
Central Bosnian Canton	18
Herzegovinian-Neretva Canton	21
West Herzegovina Canton	10
Sarajevo Canton	76
Canton 10	21
Federation of BiH	243
%	21%

The following is an overview of occupations for which employers are willing to provide training for the unemployed.

Table 52: Occupations for which employers are willing to provide training for unemployed people by cantons

Canton	Occupation 1	Occupation 2	Occupation 3	Occupation 4	Occupation 5
Una-Sana Canton	Waiter	Cook	Auto mechanic	Mechatronics - CNC oper- ator	Seller - trader
Posavina Canton	Treasurer	Waiter	Cook	Administra- tive worker	Administra- tor
Tuzla Canton	Waiter	Auto mechan- ic	Economist	Locksmith	
Zenica-Doboj Canton	Economist	Tailor	Welder - Welder	Locksmith	
Bosnian-Podrinje Canton	Waiter	Cook	Image and sound editor	Journalist	
Central Bosnian Canton	Cook	Waiter	Seller - trader	Carpenter	
Herzegovinian-Neretva Canton	Economist	Electrician	Waiter	Mechatronics - CNC oper- ator	
West Herzegovina Canton	Economist	Graphic designer	Computer scientist	Commercial- ist	
Sarajevo Canton	Economist	Civil Engineer	Cook	Hairdresser	
Canton 10	Waiter	Cook	Administra- tive worker	Economist	

Out of 243 employers which declared to be ready to provide training to unemployed persons, 31% would award reimbursement of up to 100 to 200 KM per person, and 26% between 200 to 300 KM.

Table 53: Amount of reimbursement that employers are willing to offer to unemployed persons during training

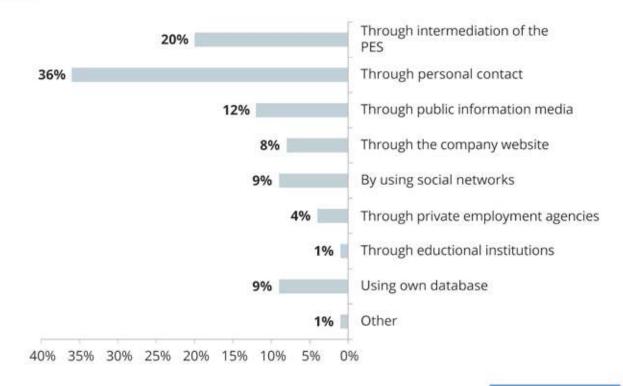
Canton	0 KM	Up to 100 KM	100-200 KM	200-300 KM	Other	
Una-Sana Canton	3	0	2	0	1	
Posavina Canton	0	0	0	1	0	
Tuzla Canton	4	17	12	3	4	
Zenica-Doboj Canton	6	10	16	4	6	
Bosnian-Podrinje Canton	1	0	5	1	0	
Central Bosnian Canton	1	3	4	4	3	
Herzegovinian-Neretva Canton	1	0	5	5	7	
West Herzegovina Canton	2	1	3	4	0	
Sarajevo Canton	8	7	23	22	12	
Canton 10	0	1	3	10	7	
Federation of BiH	26	39	73	54	40	
%	11%	17%	31%	23%	17%	





COOPERATION WITH PUBLIC EMPLOYMENT SERVICES IN FBIH

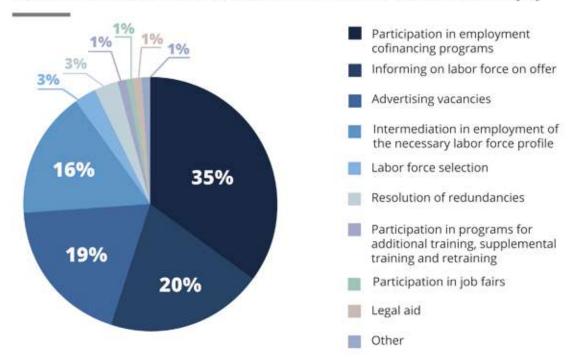
MANNER OF SEEKING NEW EMPLOYEES



87%

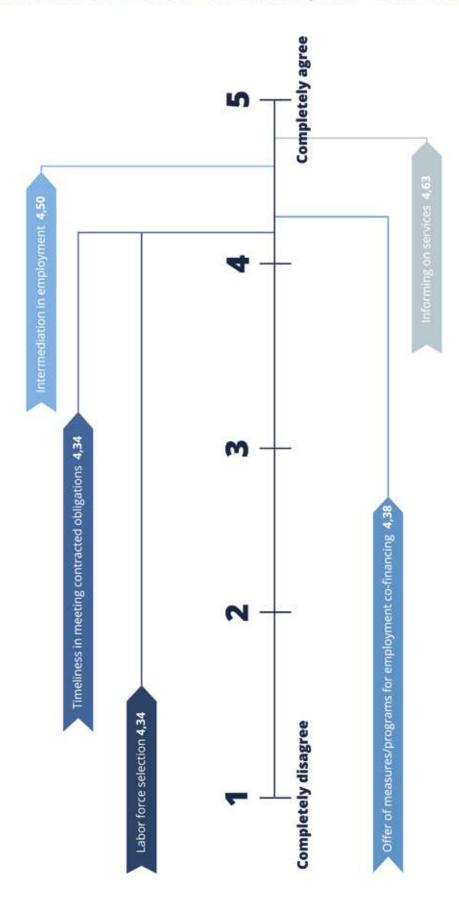
of employers in Gorazde Canton are using services of intermediation in employment through PES

FORM OF COOPERATION REALIZED WITH CANTONAL SERVICES (%)



COOPERATION WITH PUBLIC EMPLOYMENT SERVICES IN FBIH

SATISFACTION RATING FOR COOPERATION BY SERVICES (ON THE SCALE FROM ON 1 – IN FULL AGREEMENT, TO 5 – COMPLETELY DISAGREE)



8. COOPERATION WITH PUBLIC EMPLOYMENT SERVICES IN THE FEDERATION OF BIH

When it comes to the modality of looking for new workers and mediation in employment, the surveyed employers, with a multiple choice of offered answers, stated that most often they look for workers through personal contacts (36%), while 20% use public employment services. Employment mediation services through public employment services are mostly used by the surveyed employers in the Bosnia-Podrinje Canton (87% of the total respondents in the canton), followed by Posavina Canton (57%), Herzegovina-Neretva Canton (55%) and Central Bosnia Canton (48 %) It should be noted here that this is a random sample which represents all employers, not just those which cooperated with the Federation Employment Service and cantonal employment services. In addition to the above, 12% of the total surveyed employers mention advertising in the media, and 9% use social networks and their own databases.

Table 54: How to look for new workers

Canton	01	02	О3	04	O5	06	07	08	O 9
Una-Sana Canton	32	71	16	16	15	4	0	13	1
Posavina Canton	16	21	10	3	7	1	0	5	0
Tuzla Canton	79	170	35	39	35	5	6	45	5
Zenica-Doboj Canton	76	129	47	34	39	1	4	29	1
Bosnian-Podrinje Canton	14	13	3	1	1	0	0	1	0
Central Bosnian Canton	56	92	24	20	20	4	2	38	3
Herzegovinian-Neretva Canton	69	94	31	13	17	11	4	16	1
West Herzegovina Canton	13	51	27	15	10	4	5	32	0
Sarajevo Canton	138	244	91	60	66	65	5	24	14
Canton 10	17	28	6	10	7	1	0	16	0
Federation of BiH	510	913	290	211	217	96	26	219	25
%	20%	36%	12%	8%	9%	4%	1%	9%	1%

O1 – Through the mediation of the employment bureau

O2 - Personal contacts

O3 - Through the media

O4 – Via the company's website

O5 - Using social networks

O6 – Through private employ-

ment agencies

O7 – Through educational insti-

tutions

O8 – Using your own database

09 - Other

In the context of cooperation with cantonal employment services, out of 712 employers who answered this question, most employers (35%) pointed out that they participated in the implementation of employment co-financing programs, followed by information on labour supply (20%) and job advertising (20%). Employment mediation services of the required workforce profile were used by 16% of the surveyed employers.

Table 55: Form of cooperation achieved with cantonal employment services

					. ,					
Canton	01	02	О3	04	O5	O6	07	O8	O 9	O10
Una-Sana Canton	5	5	1	0	15	1	0	0	2	1
Posavina Canton	5	15	4	6	7	0	0	0	4	0
Tuzla Canton	9	14	11	0	26	0	0	1	1	1
Zenica-Doboj Canton	30	32	28	5	44	2	1	2	0	3
Bosnian-Podrinje Canton	3	2	5	0	15	0	0	0	0	0
Central Bosnian Canton	19	26	16	2	28	1	4	1	3	0
Herzegovinian-Neretva Canton	18	26	13	1	18	0	0	2	8	1
West Herzegovina Canton	7	2	3	1	16	0	0	0	0	0
Sarajevo Canton	34	19	27	2	63	1	4	2	0	4
Canton 10	8	4	4	1	15	0	0	1	1	0
Federation of BiH	138	145	112	18	247	5	9	9	19	10
%	19%	20%	16%	3%	35%	1%	1%	1%	3%	1%

- O1 Advertising vacancies
- O2 Information on labour supply
- O3 Mediation in hiring the required workforce profile
- O4 Labour force selection
- O5 Participation in employment co-financing programs

- O6 Participation in additional, additional training, retraining programs
- O7 Participation in the employment fair
- O8 Legal aid
- O9 Resolving redundancies
- O10 Other



Reviewing cooperation with the cantonal employment services, and satisfaction with the services they provide, on a scale from 1 (completely dissatisfied) to 5 (completely satisfied), the following table shows the average ratings for each of the services.

Table 56: Assessment of satisfaction with the cooperation achieved with the cantonal employment services

Canton	01	02	О3	04	O5	O6	07	08	09	Average
Una-Sana Canton	4,75	4,75	4,27	4,65	4,33	4,55	3,75	4,00	4,25	4,37
Posavina Canton	4,65	4,80	4,80	4,20	3,90	4,75	2,70	4,35	4,47	4,29
Tuzla Canton	4,56	4,41	4,06	4,21	3,88	3,97	4,16	4,08	4,21	4,17
Zenica-Doboj Canton	4,21	4,10	3,95	3,79	3,04	3,57	3,38	3,63	3,77	3,72
Bosnian-Podrinje Canton	4,94	4,94	4,88	4,94	4,81	4,88	4,56	4,75	4,63	4,81
Central Bosnian Canton	4,66	4,53	4,22	4,29	3,67	4,00	3,77	4,04	4,05	4,14
Herzegovinian-Neretva Canton	4,77	4,56	4,55	4,03	3,96	4,44	3,89	4,55	4,37	4,35
West Herzegovina Canton	4,61	4,33	4,43	4,82	4,23	4,61	4,33	4,63	4,70	4,52
Sarajevo Canton	4,32	4,09	3,95	4,34	3,86	4,20	4,00	3,85	3,91	4,06
Canton 10	4,83	4,44	4,33	4,50	3,91	4,47	3,27	4,00	3,73	4,16
Federation of BiH	4,63	4,50	4,34	4,38	3,96	4,34	3,78	4,19	4,21	4,37

O1 – Information on services

O2 - Employment mediation

O3 – Labour force selection

O4 – Offer of measures / programs for co-financing employment

O5 - Training program offer

O6 – Promptness in fulfilling contractual obligations

O7 – Participation in the employment fair

O8 - Legal aid

O9 – Support in solving the problem of redundancy

The Employment Service of Bosnia-Podrinje Canton received the highest average grade in all assessed parameters (4.81). The surveyed employers rated the service information service (4.63), employment mediation service (4.50) and offer of active employment policy measures / programs (4.38). Information on services was rated with grade 5 (completely satisfied) or grade 4 (satisfied) by 91% of the surveyed employers, mediation services by 89% and offer of active employment policy measures / programs by 85% of the surveyed employers.

Table 57: Participation of employers who rated certain forms of cooperation with cantonal employment services with 4 (satisfied) and 5 (completely satisfied)

Canton	01	02	О3	04	O5	O6	07	08	O 9	Average
Una-Sana Canton	88%	92%	82%	88%	78%	91%	63%	71%	75%	81%
Posavina Canton	90%	90%	95%	70%	50%	95%	95%	70%	74%	81%
Tuzla Canton	93%	89%	76%	83%	69%	76%	80%	70%	79%	79%
Zenica-Doboj Canton	76%	79%	67%	66%	40%	55%	44%	48%	60%	59%
Bosnian-Podrinje Canton	100%	100%	94%	100%	94%	100%	81%	82%	76%	92%
Central Bosnian Canton	95%	88%	78%	78%	62%	80%	61%	68%	76%	76%
Herzegovinian-Neretva Canton	95%	88%	93%	81%	58%	81%	61%	95%	75%	81%
West Herzegovina Canton	94%	93%	86%	100%	85%	94%	89%	88%	90%	91%
Sarajevo Canton	88%	77%	69%	84%	58%	78%	60%	46%	57%	69%
Canton 10	94%	94%	93%	100%	55%	88%	36%	57%	45%	74%
Federation of BiH	91%	89%	83%	85%	65%	84%	67%	70%	71%	78%

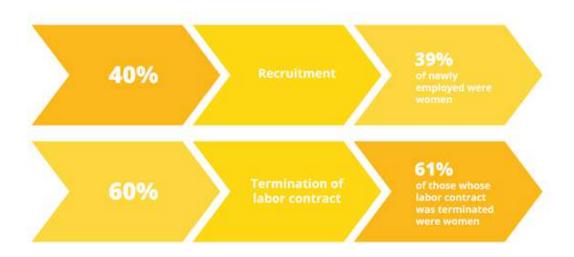


CONCLUSION

SAMPLE



CHANGES IN THE NUMBER OF WORKERS IN 2020



ARE YOU SATISFIED WITH THE QUALITY OF QUALIFICATIONS, KNOWLEDGE AND SKILLS OF THE WORKERS



MOST FREQUENTLY USED ACTIVE EMPLOYMENT POLICY MEASURES

30% Opportunity for all in 2020

22% Services in cooperation with employers

13% First labor experience in 2020

CONCLUSION

NEEDS FOR RECRUITMENT IN 2021

52%

of employers are of the opinion that they will need to recruit

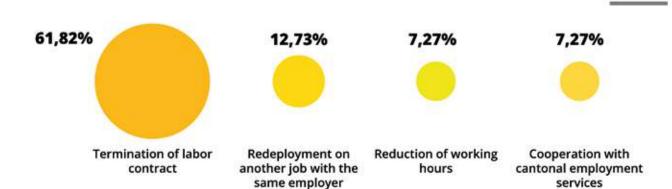
PROFESSIONAL QUALIFICATIONS

- 9% Unqualified, primary school level qualifications, semi-qualified
- 62% Qualified, highly qualified
- 16% Secondary school qualifications
- 13% University level qualifications

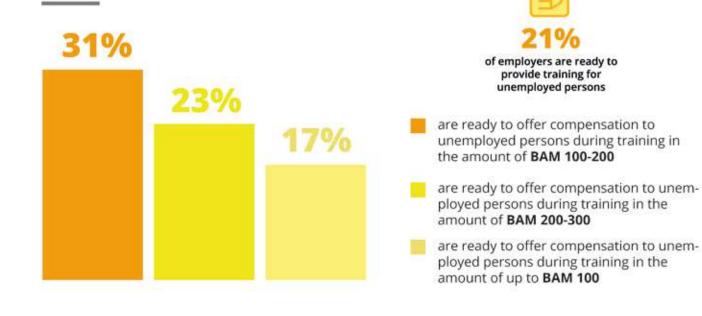
INDUSTRIES

- 43% Manufacturing industry
- 22% Trade
- 7% Information and communication
- 7% Construction

MANNER OR RESOLVING REDUNDANCIES



TRAINING FOR UNEMPLOYED PERSONS



9. GENERAL DATA FROM THE RESEARCH

- Research of labour market trends (survey of employers) in the Federation of BiH as a regular activity was conducted by the Federation Employment Service and cantonal employment services in the period 11-29 January 2021;
- The survey of employers needs included 1,232 employers registered in the Federation of BiH with five or more employees (199 more than last year), of which 639 or 52% expressed the need to employ 4,560 workers in 2021, which is 168 less than in the last year's survey;
- Most surveyed companies are those that have been operating for more than 20 years (42%), and 4% are those that have been operating for less than three (3) years;
- Employers from the sample employed 75,100 workers at the time of the survey, or 14.4% of the total employees in the Federation of BiH in December 2020 by gender 54% of men and 46% of women, and a significant majority of workers (70.40%) had a permanent employment contract. Of the total number of employees in the surveyed employers, 1,852 workers or 2.4% were older than 60 years;
- The largest number of surveyed employers are limited liability companies (80%), followed by crafts (11%);
- There is an evident decline in the volume of business with the majority of surveyed employers in 2020 (43%), as well as a decline in financial effects (43%). Only 26% of the surveyed employers had an increase in the volume of business, and only 24% of employers had an increase in the financial effects of their operations, which is a decrease of more than 35% compared to last year. Wage growth in 2020 is recorded by 24% of employers, mostly up to 10%;
- In 2020, the surveyed employers recorded a negative result between employers and workers whose employment was terminated. There were 4,076 new employees (40%), and 6,058 (60%) terminations. A total of 129 or 10% of the surveyed employers stated that they knew that workers whose employment had been terminated left Bosnia and Herzegovina, and 126 or 10% of employers stated that employees had returned to employment after previous dismissal;
- Regarding the response to the COVID-19 crisis, employers mainly applied part-time work (21%). A total of 16% of employers opted for

- the introduction of shift work, 15% of employers did not take any measures, and 1% of employers stopped working completely;
- Dissatisfaction with the quality of qualifications, professional knowledge and skills of employees during the survey was expressed by 182 employers or 15%;
- Employers expressed the greatest dissatisfaction with the lack of practical work during education (31%), and 23% of employers believe that the acquired qualifications of workers do not meet the needs of employers. This suggests that the activities of public employment services have to co-finance vocational training, development and training, but also a need for closer cooperation between the business sector and educational institutions;
- Active employment policy measures were used by 25% of the surveyed employers, who employed 807 people on the basis of these measures. They mostly used the following measures: Opportunity for all 2020 (30%), Service in cooperation with employers 2020 (22%), First work experience intended for young people without work experience (13%) and Employment of women 2020 (9%). The general rating of satisfaction with the measures is 4.53, which can be considered a considerably good rating;
- During the survey, 301 employers or 24% stated that at the time of the survey there was a shortage of workers of a certain profile and problems in hiring workers. As a significant reason for the lack of workers, from the domain of social factors, on a scale of 1 to 5, employers mostly point out high taxes and contributions and general economic conditions (average score 3.56). When it comes to factors related to individuals, the largest number of employers cite the lack of staff with the required occupation (average grade 3.94) and staff with knowledge and skills needed for the job (average grade 3.90) as the reason for the lack of workers, which indicates a chronic problem of mismatch between supply and demand in the labour market. In addition to the above, as a limiting factors related to individuals, employers point out the following: lack of necessary work experience (3.77) and lack of interest of individuals for work in a particular job (3.27);
- Regarding job candidates, employers expressed the greatest dissatisfaction with the lack of technical and professional knowledge

- and skills, and the lack of self-initiative and creativity of job candidates. Employers also point out dissatisfaction with the lack of IT, organizational, analytical and planning skills among job candidates;
- Out of a total of 1,232 surveyed employers, 639 (52%) expressed the need to employ a total of 4,560 workers in 2021, 66% of which refer to newly created jobs and 34% to vacant positions;
- Most employers estimate that in 2021 they will have an increase in business volume (57%) as well as an increase in financial effects (56%), and wage growth is foreseen by 43% of employers, mostly up to 10%;
- The highest expressed need for employment of new workers in 2021, in relation to the total number of required workers in the Federation of BiH, is expressed in the Sarajevo Canton (13%), Tuzla (9%) and Zenica-Doboj Canton (8%);
- The greatest needs for new employment are expressed for occupations in manufacturing (43%), trade (22%) and Information and communication (7%);
- According to education, the surveyed employers expressed the greatest needs for workers with three-year secondary education (skilled and highly skilled workers), 62%. This is followed by the demand for workers with four-year secondary education (SSS), 16%, and workers with higher education (VSS), 13%;
- According to the needs employers stated in this research, the most sought-after occupations with secondary education in 2021 are: salesman, seamstress, driver, locksmith, welder, shoemaker, security guard, carpenter, butcher, call centre operator, pastry cook;
- According to the needs employers stated in this research, the most sought-after occupations with higher education are: IT expert, mechanical engineer; civil engineer, electrical engineer, economist, architect, graphic designer, master of pharmacy, commercialist, veterinarian;
- Regarding the readiness of employers to hire unemployed persons from one of the more difficult-to-employ categories in 2021, with the possibility of choosing more categories, the largest number expressed readiness to employ young people without work experience (22%), followed by women (20%), those older than 40 years (17%), demobilized soldiers and unskilled workers (9% each) and persons with disabilities (6%);

- The need for additional training of workers in accordance with their plans to introduce changes in technology and work organization was stated by 411 employers, i.e. 33% of the respondents. The majority of employers stated the need for additional training of workers in specific jobs in their workplace (45%). A large number of employers stated the need for additional training and retraining (17%), followed by the need for IT skills computer work (16%);
- In the context of the possibility of organizing practical classes, 433 employers or 35% of the total surveyed employers have the opportunity and are ready to accept students for practical classes, with 22% willing to allocate reimbursement up to 100 KM, 29% from 100 to 200 KM, 19% from 200 to 300 KM and 9% more than 300 KM, mostly for the following occupations: economist, waiter, cook, salesman, car mechanic, locksmith, seamstress, administrative worker, driver, veterinarian, reinforcement, economic technician and treasurer. A total of 21% of employers are not willing to allocate funds to compensate students for internships;
- In the context of the possibility of organizing training for unemployed persons, 243 employers or 20% of surveyed employers have the possibility and are ready to provide conditions for training of unemployed persons, with 17% willing to allocate reimbursement up to 100 KM, 31% from 100 to 200 KM, 23 % from 200 to 300 KM and 17% more than 300 KM, mostly for the following occupations: economist, waiter, cook, salesman, car mechanic, mechatronics CNS operator, computer scientist, electrician, hairdresser, carpenter, seamstress, locksmith, administrative worker;
- With the possibility of listing more options, the surveyed employers point out that they most often look for new employees through personal contacts (36%), followed by public employment services in the form of employment mediation (20%), advertising in the media (12%), and 9% each using social networks and their own database;
- In the context of cooperation with cantonal employment services, employers mostly point out that they cooperate within the participation in the implementation of employment co-financing programs (35%), information about labour supply (20%), advertising vacancies (19%) and employment mediation (16%).



10. GENERAL OBSERVATIONS AND RECOMMENDATIONS

- The results presented in this report were collected in January 2021, and should be viewed in the context of the overall social situation and the consequences caused by the COVID-19 pandemic;
- Following the declaration of a pandemic by the World Health Organization, in order to prevent the spread of the virus and serious health consequences for the population, the Government of the Federation of BiH adopted a Decision declaring a state of distaster caused by corona virus (COVID-19) in the Federation of BiH (V number: 408 / 2020 of March 18, 2020), and the Federation Civil Protection Headquarters issued a series of orders, including restriction of movement, as well as the suspension of certain activities to suspend work;
- Catering and hotel industry is the first line of business that felt the consequences in February 2020, given the smaller number of tourists and cancelled overnight stays of tens of thousands of guests from countries affected by the pandemic, but also other countries where pandemic protection measures were introduced. In addition to the catering and hotel sector, employers from the manufacturing industry (especially exporters, manufacturers of furniture, automotive parts, textile industry), transport sector, but also small and micro enterprises and craftsmen;
- In accordance with the law, during 2020 public employment services had to determine priorities for funds for material and social security of unemployed persons (cash benefits during unemployment), in order to mitigate the consequences of the coronavirus pandemic in the labour market, and in 2020, due to the increase in the number of beneficiaries of unemployment benefits (by 35% annually) temporarily suspended the implementation of active employment policy measures;
- After the priorities established by the law, it is necessary to implement measures to co-finance employment and training (in order to prevent long-term unemployment, preserve and improve the working abilities of unemployed persons). Also, it is necessary to consider the implementation of a measure that would include the beneficiaries of cash benefits at an early stage for their faster return to the labour market, and continue to provide support through co-financing self-employment and on-the-job training for specific jobs

in accordance with employers' needs;

- Based on the needs of the employers stated in this research (both from the aspect of demand for workers of certain occupations and from the aspect of required knowledge and skills), stronger contacts with employers need to be initiated in order to prompt action and effective mediation in employment of workers with occupations for which employers have expressed a need for. In accordance with the expressed needs, the measures of active employment policy need to be adjusted, especially the measure focused on onthe-job training in situations when the worker with the required occupation is not in the register of unemployed persons;
- Based on the expressed readiness of employers to organize practical classes for secondary school and university students, it is necessary to initiate local partnerships for employment and strengthen the dialogue between employment services, employers and educational institutions, which would agree on the solutions at the local and cantonal level regarding enrolment policies, curricula, organization of practical classes in business companies and other issues related to education and the labour market;
- In accordance with the above, in the forthcoming period, as far as possible, it is necessary to continue examining the trends and needs in the labour market, and maintain the focus on employers from the private sector. The next survey of employers will cover issues related to the key needs of employers to maintain and increase employment as well as issues related to the necessary knowledge and skills of workers, and use all available sources of information from other institutions;
- Regularly monitor trends in the labour market (labour needs, layoffs, vulnerable activities, etc.) and provide an adequate software solution for entering and processing survey data;
- Submit research results to Federation and cantonal governments, as well as relevant ministries and institutions and other interested organizations;
- Improve employment mediation services in employment services (advertising vacancies, contacting employers, profiling, selection of candidates...) and use / improve technolog-

- ical solutions within the information system for performing these activities and regular statistical reporting;
- Improve communication with employers in analysing current problems with the aim of finding opportunities to support public employment services, improve cooperation and
- mitigate the consequences of the COVID-19 pandemic;
- Continue training of interviewers and labour market research coordinators in cantonal employment services.





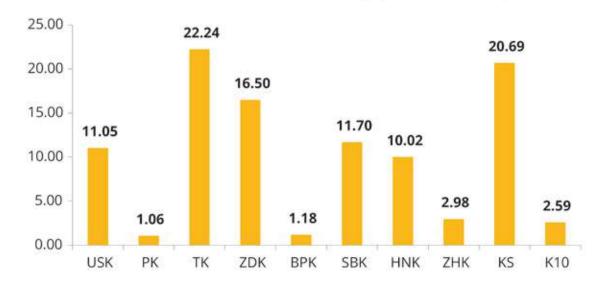


OVERVIEW OF THE NUMBER OF PUPILS IN SECONDARY SCHOOLS IN FBIH

% OF PUPILS IN SECONDARY SCHOOL BY CANTON

66.980

pupils in secondary schools in FBiH



% OF PUPILS ENROLLED IN THE FIRST GRADE OF HIGH SCHOOL BY CANTON

18.595

pupils enrolled in the first grade of secondary school in FBiH

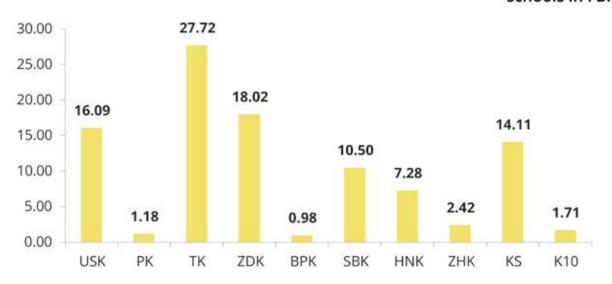


OVERVIEW OF THE NUMBER OF PUPILS IN SECONDARY SCHOOLS IN FBIH

% OF PUPILS IN THREE-YEAR SECONDARY SCHOOLS BY CANTON

13.948

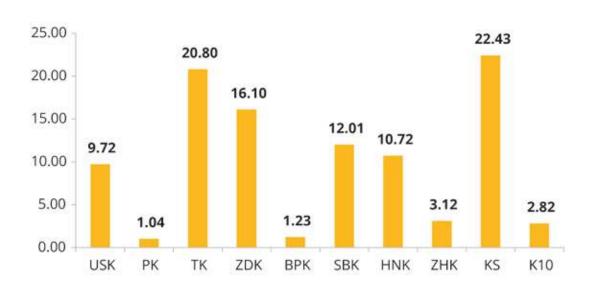
pupils in three-year secondary schools in FBiH



% OF PUPILS IN FOUR-YEAR SECONDARY SCHOOLS BY CANTON

53.019

pupils in four- year secondary schools in FBiH



OVERVIEW OF THE NUMBER OF STUDENTS IN SECONDARY SCHOOLS IN THE FEDERATION OF BIH IN THE SCHOOL YEAR 2020/2021 BY MAJORS

In order to see a broader picture of the labour market developments, in addition to collecting information through a survey of employers, information related to the education sector, specifically secondary education, was also collected.

During the preparation of the labour market research and employers' surveys, the Federal Employment Service requested from the cantonal ministries of education data on secondary schools, majors studied in these schools, the total number of students attending these courses and the number of students enrolled in these schools in 2020/21.

After receiving the requested data from the cantonal ministries of education, the Federal Employment Service, in addition to the Labour Market Research Report, prepared an overview of the received data. According to the available information, this is the first time that data on secondary schools, majors and the total number of students attending these classes can be viewed in one place, with a separate number of students enrolled in the 2020/21 school year.

The above information is extremely important for students in the final grade of primary school when choosing occupations and enrolment in secondary schools, and in a broader sense indicates trends in labour supply in the labour market. These data can be compared with the most numerous occupations on the records of employment services, as well as with the data on the demand for workers expressed by employers.

Enrolment policy dictates the supply of labour, its quality and quantity, and on the other hand information related to labour demand should influence the enrolment policy, primarily through indicators of surplus and deficit occupations, required knowledge and skills for certain jobs, and the willingness of employers to cooperate in organizing practical classes, which should be taken into account when developing curricula and determining enrolment policy in educational institutions.

Synergistic action and continuous dialogue of educational institutions, employment agencies and employers, both at the local and higher level, can certainly avoid adverse effects on the labour market and indirectly positively affect the social and employment status of residents in terms of improving employability versus real and potential opportunities.

TOTAL STU- DENTS AT SCHOOL	408	674			245							403
TOTAL ENROLED TO: IN FIRST DE GRADE IN SI	110	150			09							128
	_	~										_
The total number of students enrolled in this field in the school year 2020/21	408		674		21	42	17	76	21	33	35	88
The number of students enrolled in the first grade in that major in the school year 2020/21	110		150		0	20	0	19	0	0	21	24
Qualification level - degree	\	2	2	2	2	2	>	2	≡	≡	≡	≥
Qualification title/ occupation (major)	Gymnasium graduate	EU VET Medical Tech- nician	General laboratory technician	General chemical technician	Economic technician - commercial direction of EU VET	Economic Technician - Banking and Insur- ance, EU VET	Economic technician - financial direction EU VET	EU VET tourism tech- nician	Waiter / chef	Merchant	Chef EU VET	Mechanical technician programmer CNC machine
Name of the school	Public Institu- tion Gymnasi- um Bihać	PI Medical School Bihać			PI Mixed High School Bihać							PI Mechan- ical-traffic mixed high school Bihać
Town- municipality	ВІНАС́											
Canton	USK											

					368					64			99	397
					83					20			20	105
86	54	61	29	36	175	47	24	63	59	28	18	18	99	36
25	18	21	21	19	39	25	0	0	19	∞	7	2	20	0
≥	≡	≡	≡	≡	≥	>	2	≥	≡	≥	2	≥	2	≥
Road traffic technician	Gas and plumber	Auto mechanic	The driver of motor vehicles	CNC operator	EU VET computer technician	EU VET Information Technology Technician	EU VET Electricity Technician	EU VET Electronics Technician	Electrician	A general musician	A soloist on an instru- ment	Art technician for applied painting	General Gymnasium	Forestry technician
					PI Mixed electrical and wood process- ing high school Bihać					PI Art School Bihać			PI Gymnasi- um Bosanska Krupa	PI Mixed High School "Safet Krupić" Bosanska Krupa
													BOSANSKA KRUPA	

							203					70	354				
							57					20	136				
75	06	77	38	24	27	30	72	41	46	31	13	70	94	35	23	26	65
17	21	25	20	10	0	12	15	25	0	17	0	20	25	11	23	o	25
≥	2	>	≡	≡	≡	≡	2	2	≥	≡	≡	≥	2	≥	≡	≡	≣
Wood processing technician-designer CNC programmer EU VET	Mechanical technician for computer design	Mechanical technician programmer CNC machine	Carpenter	Installer of central heating	Gas and plumber	Welder	Gymnasium	EU VET Economic Technician	Forestry technician	CNC operator	Commercial	Gymnasium	Mechanical technician for computer design	Agricultural technician	Installer of central heating	Textile confection- er-tailor	EU VET dealer
							PI Mixed High School Bosanski Petrovac					PI Mixed High School Bužim"					
							MUNICIPALI- TY BOSANSKI PETROVAC					BUŽIM					

			256	833													592		
			54	297													156		
45	24	42	256	97	93	86	66	45	92	53	16	52	27	24	69	84	91	86	69
22	0	21	54	25	25	24	25	18	23	41	16	26	27	24	24	26	25	23	25
≡	≡	≡	≥	≥	≥	≥	≥	≡	≡	≡	≡	≡	≡	Ξ	≡	≡	≥	≥	≥
Auto mechanic	Locksmith	Gas and plumber	Pl Gymnasium Cazin	EU VET computer technician	Mechanical technician for computer design	Mechanical technician programmer CNC machine	Road traffic technician	Textile confection- er-tailor	The driver of motor vehicles	Locksmith	Tinsmith	Auto mechanic	Central heating / gas and plumber	EU VET CNC machine operator	Electrician	Hairdresser	Economic technician	Business - legal tech- nician EU VET	EU VET architectural technician
			PI Gymnasium Cazin	JU I Srednja Škola Cazin													PI II High school Cazin		
			CAZIN																

							219	241						77
							53	99						21
30	78	81	55	89	11	11	219	63	49	20	56	14	6	77
0	18	19	16	19	11	0	53	15	0	0	36	14	0	21
≥	2	≥	≡	≡	≡	≡	≥	≥	≥	≥	≡	≡	≡	≥
EU VET construction technician	Catering technician EU VET	EU VET tourism tech- nician	EU VET dealer	Chef EU VET	Ceramist	Masonry-facade-insu- lator	Religious school	Gymnasium	Economic Technical School	Mechanical Engineer- ing School	Wood processing technician-designer CNC programmer EU VET	Waiter	Textile vocational school tailor EU VET	Gymnasium
							PI Madrasa "Džemaludin Čaušević" Cazin	PI Mixed sec- ondary school "Pr. Omer Filipović" Ključ						PI Gymnasium Sanski Most
								KLJUČ						SANSKI MOST

	PI Mixed High School Sanski Most	Mechanical technician programmer CNC machine	2	25	105	167	635
		Medical technician	≥	25	134		
		EU VET Power Tech- nician	2	0	29		
		EU VET Economic Technician	≥	21	43		
		Road traffic technician	≥	27	55		
		Electrician	≥	0	45		
		Waiter EU VET	≡	0	10		
		CNC operator	≡	0	26		
		Auto mechanic	≡	26	47		
		Hairdresser	≡	0	47		
		Seller	≡	20	20		
		Locksmith	≡	23	36		
	PI Agricultural High School	EU agricultural tech- nician VET-phytophar- macist	≥	∞	27	16	78
		Agricultural technician	≥	0	16		
		Veterinary technician	≥	∞	35		
VELIKA KLADUŠA	PI Gymnasium Velika Kladuša	General major	≥	38	201	38	201
	PI and High school "Dr. Husein Džanić" Velika Kladuša	Road traffic technician	2	25	95	175	517
		Mechanical technician for computer design	≥	25	86		
		The driver of motor vehicles	≡	25	51		
		Auto mechanic	≡	25	71		

				497								7398	136			311		
				170								2101	46			75		
69	80	53	0	93	94	44	8	75	70	29	36		91	22	23	100	62	74
25	25	25	0	25	25	25	0	25	25	25	20		24	22	0	25	0	25
≡	≡	=	≡	≥	2	≡	Ξ	≡	≡	=	≡		≥	2	2	≥	≥	>
Gas and plumber	Installer of central heating	Electrician	Locksmith	Economic technician	Business Law techni- cian	EU VET food technician	EU VET agricultural technician	EU VET dealer	Chef EU VET	EU VET baker	Fruit-grower-wine- maker		Economic technician financial accounting department	Economic technician - commercial direction	Business and legal direction	Electrical technician	Agricultural technician	Medical technician
				PI II secondary school Velika Kladuša									School centre fra. M Nedić Orašje			Vocational high school Orašje		
													ORAŠJE					
												USC TOTAL	PC					

			266											713	658						
			99											186	172						
20	12	13	45	37	24	21	26	24	20	20	16	12	21		18	107	97	38	16	0	98
25	0	0	25	20	0	0	0	0	20	0	0	0	0		20	25	26	0	20	0	26
≡	≡	≡	≥	≥	≥	≥	≥	≥	≡	≡	≡	≡	≡		2	≥	≥	≥	≥	≥	≥
CNC operator	Waiter	Cook	Computer technician	Agricultural technician	Mechanical technician	Economic technician computer science	Business Law techni- cian	Textile technician-clothing designer	CNC operator	Business Secretary	Locksmith	Florist-gardener	Electrician		Gymnasium	Economic technician	Power technician	Mechanical technician for computer design	Mechanical technician operator for CNC machines	Mechanical technician	Nurse technician
			High school Pere Zečevića Odžak												PI Mixed High School Banovići						
			ODŽAK												BANOVIĆI						
														PK UKUPNO	TC						

								203									333					
								47									96					
33	48	7	51	59	0	12	23	64	∞	35	30	27	39	0	0	0	99	26	89	23	93	11
0	14	0	22	19	0	0	0	17	0	0	7	10	13	0	0	0	14	11	25	0	35	11
≥	≡	=	=	≡	=	≡	≡	≥	2	≥	≡	≡	≡	≡	≡	≡	2	>	≥	≥	≡	≡
Mining technician	Merchant	Electrician	Electro mechanic	Welder	Auto mechanic	The driver of motor vehicles	Surface mine mining mechanic	Business Law techni- cian	Economic technician financial computer department	Nurse technician	Food processor	Auto mechanic	Welder	Gas and plumber	Tinsmith	Installer of central heating	Gymnasium - general gymnasium	Economic technician	Power technician	Food technician	Motor vehicle driver	Merchant
								PI Mixed High School Čelić									PI Mixed High School Doboj East					
								ČELIĆ									DOBOJ EAST					

	252		1420													
	09		395													
25	183	69	75	122	20	61	73	26	21	86	78	85	26	11	102	51
0	35	25	25	28	0	25	19	22	0	27	25	20	0	0	26	25
≡	2	≥	2	≥	≥	≥	≥	≥	≥	≥	≥	≥	2	≥	≥	2
Tailor	General gymnasium	IT Gymnasium	Mechanical technician for computer design	Mechanical technician operator for CNC machines	Mechatronics technician	Power technician	Economic technician in the field of finance and computer science	Business Law technician	Banking and insur- ance	Nurse technician	Dental technician	Pharmaceutical tech- nician	Dental nurse techni- cian	Tourist technician	Road safety technician	Construction technician
	PI Gymnasium Dr. "Musta- fa Kamarić" Gračanica		PI Mixed High School Gračanica													
	GRAČANICA															

														240	1164					
														49	342					
32	59	73	21	53	85	38	39	28	35	25	7	16	0	240	63	28	151	86	30	62
0	26	24	0	27	27	16	0	20	13	0	0	0	0	49	0	28	25	21	24	0
2	≡	=	≡	≡	≡	≡	≡	≡	≡	≡	≡	≡	≡	2	2	2	≥	≥	>	≥
Architectural technician	Auto mechanic	Welder	Electro mechanic	Electrician	Hairdresser	Merchant	Cook	The driver of motor vehicles	Tailor	Terrace potter	Mason	Auto electrician	Locksmith	Gymnasium	Mechanical technician for computer design	Mechanical technician operator for CNC machines	Nurse technician	Textile technician-clothing designer	Agricultural technician	Food technician
														PI Gymnasi- um "Musta- fa Novalić" Gradačac	JU High school "Hasan Kikić" Gradačac					
														GRADAČAC						

																			7 613				
																			177				
	25	24	79	29	29	49	69	19	28	9	09	28	10	45	33	45	0	0	15	89	43	52	45
	31	0	30	25	24	13	18	6	14	0	23	26	0	14	0	17	0	0	0	16	15	19	18
	≥	≥	≥	≥	≥	≡	≡	≡	≡	≡	≡	≡	≡	≡	≡	≡	≡	≡	≥	≥	2	≥	≥
Architectural techni-	cian	Construction technician	Economic technician	Computer technician	Power technician	Metal turner	Auto mechanic	Locksmith	The driver of motor vehicles	Car body shop	Tailor	Fruit-grower	Milk processor	Electrician	Cook	Auto electrician	Baker	Florist	Gymnasium	Mechanical technician operator for CNC machines	Mechanical technician for computer design	Veterinary technician	Economic technician
																			PI Mixed High School Kalesija				

							185						371		288		
							38						74		64		
126	52	43	74	58	37	0	09	42	0	30	18	35	89	303	5	53	71
32	18	1	24	14	10	0	7	∞	0	7	7	6	13	61	0	18	11
≥	≡	≡	≡	≡	≡	≡	≥	≥	≥	≡	≡	≡	≥	≥	≥	≥	2
Nurse technician	Auto mechanic	Installer of central heating	Hairdresser	Welder	Merchant	Baker	General gymnasium	Economic technician	Forestry technician	Welder	Auto mechanic	Hairdresser	General gymnasium	Nurse technician	Economic technician financial and account- ing	Economic technician of business informatics	Chemical technician in pharmaceutical production
							PI Mixed High School "Musa Ćazim Ćatić" Kladanj						PI Mixed High School Luka- vac		PI Mixed Secondary School of Economics and Chemistry Lukavac		
							KLADANJ						LUKAVAC				

				415									199					
				125									46					
46	73	10	30	23	69	70	63	23	59	52	12	44	0	70	0	84	22	14
0	23	4	∞	0	23	16	25	0	15	17	12	17	0	12	0	21	7	9
≥	≡	≡	≡	≥	2	≥	≥	≥	≡	≡	≡	≡	2	≥	≥	≥	≡	≡
Business Law techni- cian	Hairdresser	Merchant	Business Secretary	Mechanical technician for computer design	Mechanical techni- cian operator for CNC machines	Road traffic technician	Computer technician	Power technician	Welder	The driver of motor vehicles	Auto mechanic	Electrician	General gymnasium	Mechanical technician for computer design	Agricultural technician	Economic technician financial accounting department	Installer of central heating	Welder
				PI Mixed Secondary Electro-Mechanical School Lukavac									PI Mixed High School Sapna					
													SAPNA					

	1005																		
	271																		
o	79	06	81	0	72	12	18	75	0	108	83	61	69	10	7	84	48	62	46
C	50	23	22	0	16	0	0	18	0	27	26	22	22	0	0	25	10	15	25
Ξ	≣ ≥	≥	2	≥	2	2	≥	2	≥	≥	≡	≡	≡	≡	≡	≡	≡	≡	≡
Occernic torreso		Mechanical technician for computer design	Mechanical techni- cian operator for CNC machines	Agricultural technician	Economic technician financial computer department	Economic technician business informatics	Economic technician commercial direction	Business Law technician	Power technician	Computer technician	The driver of motor vehicles	Auto mechanic	Welder	Locksmith	Installer of aluminium and PVC windows and doors	Hairdresser	Cook	Merchant	Electrician
	PI Mixed High School Sre- brenica																		
	SREBRENIK																		

149	<u>-</u>						478				315				135	510
46	P						111				78				28	128
œ	3	52	0	24	23	12	323	16	28	111	145	11	46	113	135	510
σ	ì	14	0	9	2	12	69	0	0	42	35	0	11	32	28	128
≥	2	≥	≡	≡	≡	≡	2	≥	≥	≥	2	≥	≥	≥	2	2
Economic technician	-	Electrical energy tech- nician	Locksmith	Welder	Auto mechanic	Electrician	General gymnasium	Language Gymnasium	Mathematical-Informatics Gymnasium	Gymnasium of infor- mation technologies	General gymnasium	Pedagogical Gymnasium	Language Gymnasium	Medical Gymnasium	General gymnasium	Religious school
PI Mixed High	School Teočak						PI Gymnasium "Meša Seli- mović" Tuzla				PI Gymnasium "Ismet Mujezi- nović" Tuzla				PI Catholic School Center "St. Francis" General Gym- nasium	PI Behram Beg Madrasa Tuzla
TEOČAK							TUZLA									

243							1179							109	
65							317							39	
22	38	25	65	58	0	0	602	121	114	119	86	50	87	45	64
23	10	0	12	11	0	0	146	29	27	30	29	27	29	16	23
≥	2	≥	≥	≥	≥	≡	2	≥	≥	2	≥	2	≥	2	≥
Economic technician financial-computer direction	Economic technician commercial direction	Economic technician banking and insurance	Business Law techni- cian	Customs technician	Economic technician business informatics	Merchant	Nurse technician	Nurse	Pharmaceutical tech- nician	Physiotherapeutic technician	Paediatric nurse	Obstetrician-gynae- cological nurse-tech- nician	Dental nurse-techni- cian	A general musician	A musician
JPI Secondary School of Eco- nomics and Trade Tuzla							PI Secondary Medical School Tuzla							PI High School of Music "Č.M."	

	827							303								303
	273							96								29
	338	78	113	154	13	72	59	88	42	45	24	58	19	12	15	38
	108	25	44	48	0	27	21	25	17	18	2	20	∞	m	0	15
	≥	≥	2	2	≡	≡	≡	2	2	≥	≥	≥	≡	≡	≡	≥
Computer technician		EU VET Electronics Technician	Electric power technician	Mechatronics techni- cian	Electronics telecom- munications	Auto electrician	Electrician	Architectural techni- cian	Construction technician	Geodetic technician	Painting designer	Graphic designer	Terrace potter	Masonry-facade-insu- lator	Building envelope insulator	Chemical technician microbiologist
PI Mixed High	School of Electrical Engineering Tuzla							PI Mixed Secondary School of Civil Engineering and Geodesy Tuzla								PI Mixed Chemical High school Tuzla

			381								34			476
			106								11			117
25	148	92	59	116	16	09	29	0	63	0	М	11	20	145
0	34	18	21	21	0	21	22	0	21	0	0	0	<u></u>	35
2	2	≥	2	≥	2	≡	≡	≡	≡	≡	2	≥	≥	2
Chemical technician nutritionist	Chemical technician in the pharmaceutical industry	Graphic technician web designer	Mechanical technician for computer design	Mechanical technician operator for CNC machines	Mechanical technician of automation and robotics	Car mechanic diag- nostician	Welder	Auto mechanic	Installer of central heating	Gas and plumber	Geological technician	Mining technician	Surface mine mining mechanic	PI Mixed Secondary Traffic School Tuzla
			PI Mixed Secondary Mechanical School Tuzla								PI Mixed Mining High School Tuzla			PI Mixed Secondary Traffic School Tuzla

				325						157				291		1231				
				95						45				09		358				
57	152	77	45	56	0	93	150	0	26	14	0	0	116	291	0	165	114	0	99	28
41	36	20	12	16	0	25	54	0	0	∞	0	0	37	09	0	51	30	0	16	15
≥	≥	≡	Ξ	2	≥	≥	≡	≡	≡	≥	≡	≡	≡	≥	≥	≥	2	≥	≥	≥
PTT traffic technician	Road safety technician	The driver of motor vehicles	Auto mechatronics	Veterinary technician	Textile technician	Cosmetic technician	Hairdresser	Shoemaker	Tailor	Tourist technician	Waiter	Confectioner	Cook	General gymnasium	IT Gymnasium	Power technician	Mechanical technician for computer design	Wood processing technician on CNC machines	Agricultural technician	Forestry technician
				PI Mixed High School Tuzla						PI School of Tourism and Hospitality Tuzla				PI Gymnasium Živinice		PI Mixed High School Živinice				
														ŽIVINICE						

												103	14895	133	353						
												33	4029	35	82						
343	0	81	77	25	92	0	44	70	41	26	102	103		133	132	72	84	0	7	0	7
85	0	26	28	0	25	0	19	28	0	10	25	33		35	22	13	22	0	7	0	7
2	≥	=	≡	=	=	≡	=	=	≡	≡	=	≥		2	≥	≥	≥	=	=	≡	Ξ
Nurse technician	Pharmaceutical tech- nician	Electrician	Auto mechanic	Electrical technician	Welder	Installer of central heating	Carpenter	Upholsterer	Fruit-grower-wine- maker	Florist gardener	Hairdresser	General gymnasium		Gymnasium	Electrical electronics technician	Mining technician	Economic technician	Locksmith	Electrician	Gas plumber	Electromechanic
												PU Richmond Park Interna- tional Second- ary School		Gymnasium "Muhsin Rizvić"	Mixed Sec- ondary school "Mehmedalija Mak Dizdar"						
														BREZA							
													TC TOTAL	ZDC							

			089		510								647				
			132		133								173				
29	09	80	570	110	24	06	88	93	43	65	99	41	72	92	99	137	21
19	18	17	110	22	0	23	22	22	22	22	22	0	17	12	12	44	0
≥	≥	2	2	≥	2	2	2	≥	2	2	2	≥	≥	2	2	≡	≡
Financial technician	Commercialist	Hotel tourism technician	Medical School Nurse technician Zenica	Dental technician	Electrical energy tech- nician	Electro computer automation technician	Architectural techni- cian	Road traffic technician	Metallurgical techni- cian	Electrical electronics technician	Mechanical technician for computer control of machines	Geodetic technician	Mechatronics techni- cian	Textile technician confectioner	Construction techni- cian	The driver of motor vehicles	Terrace potter
			Medical School Zenica		Technical School Zenica								Mixed Sec- ondary School "Mladost"				

										400											
										129											
0	19	0	35	21	131	58	11	0	0	55	28	24	11	35	27	0	65	19	32	42	0
0	0	0	11	11	44	22	0	0	0	20	10	0	11	11	11	0	22	0	11	11	0
≣	≡	≡	≡	≡	≡	≡	≡	≡	≡	2	2	≥	≥	≡	≡	≡	≡	≣	Ξ	≡	≡
Concrete reinforce- ment	Dry construction fitter	Masonry-facade-insu- lator	Electrician	Electronic communication	Hairdresser	Textile confection- er-tailor	Electronic mechanic	Electromechanic	Electrician	Mechanical energy technician	General chemical technician	Mining technician	Geological technician	Auto mechanic	Auto electrician	Car body painter	Welder	Installer of central heating	Gas and plumber	Locksmith	Smelter
										Mixed Industrial High School											

						370									
						93									
1	0	18	0	22	11	38	33	28		80	28	_∞	61	0	5
0	0	1	0	11	0	11	9	18	0	13	9	0	20	0	2
≡	≡	≣	≡	≡	≡	2	2	≥	2	≥	2	≥	≡	≡	≡
Chemical laboratory assistant	Geo driller	Construction and handling machine operator	Miner in underground exploitation	CNC machine oper- ator	Surface mining oper- ator	Agricultural technician (NPP mode)	Food Technician (NPP mode)	Veterinary technician (NPP mode)	Ecological technician (NPP mode)	Business-legal tech- nician (curriculum mode)	Catering technician (curriculum mode)	Forestry technician (NPP mode)	Chef (modular curric- ulum)	Waiter (modular curriculum)	Butcher (modular NPP)
						Mixed High school									

			22						290	440					527		
			rv						57	110					163		
23	0	25	6	4	4	5	0	0	290	123	22	114	06	91	09	33	98
7	0	7	0	0	0	5	0	0	57	22	0	44	22	22	6	11	22
≡	≡	≡	≡	≡	=	≡	≥	≥	≥	2	≥	≥	≥	>	≥	≥	2
Confectioner (modu- lar NPP)	Baker (modular NPP)	Merchant (modular curriculum)	PK Candle maker	PK Car painter	Locksmith	PK confectioner textile tailor	Skilled confectioner textile tailor	KV locksmith	Gymnasium	Economic technician	Banking technician	Electrical electronics technician	Mechanical technician	Road traffic technician	Mining technician	Construction technician	Business legal techni- cian mod NPP
0 =	ш	2 0	High school F for vocational education and work training			T 1	100	*	Gymnasium "Muhsin Rizvić"	Secondary technical school "Kemal Kapetanović"	ш	т н	2		Mixed High school		ШО
									KAKANJ						_ 0		

							152	464													
							43	148													
09	99	42	64	23	23	70	152	49	54	97	46	43	15	24	11	37	30	23	25	_	0
22	22	12	22	10	11	22	43	15	17	22	22	20	0	0	11	11	11	7	1	1	0
≡	≡	≡	≡	≡	≡	≡	>	2	2	2	≥	≥	≡	≡	≡	≡	≡	≡	≡	≡	
The driver of motor vehicles	Welder	Locksmith	Electrician	Seller	Cook	Hairdresser (NPP mode)	Gymnasium	Economic technician	General chemical technician	Electrical energy tech- nician	Road traffic technician	Mechanical technician	Electrician	Electromechanic	Seller	Welder	Locksmith	Textile confection- er-tailor	Hairdresser-Wig mak- er PK	Bookbinder	Metal turner
							Gymnasium "Edhem Mulabdić"	Mixed High school													
							MAGLAJ														

	269						266	602								911	
	49						65	154								257	
0	104	76	65	0	0	3	266	22	84	100	162	92	79	0	63	100	91
0	19	2	22	0	0	c	65	22	22	22	44	22	22	0	0	22	22
≡	≥	≥	2	≡	≡	≡	2	≥	≥	≥	≥	2	≥	≥	≥	≥	≥
Pulp and paper producer	Gymnasium	Economic technician	Physiotherapeutic technician	Cook	Waiter	Seller	Gymnasium	Mechanical technician for computer control of machines	Electrical energy tech- nician	Economic technician	Nurse technician	Pharmaceutical tech- nician	Construction techni- cian	Laboratory technician	Mechanical technician	Electrical computer technician (curriculum mode)	Business Law techni- cian
	Mixed sec- ondary school "Musa Ćazim Ćatić"						Gymnasium "Musa Ćazim Ćatić"	Secondary technical school								Mixed High school	
	ОГОЛО						TEŠANJ										

44	47	0	18	18	44	21	30	18	16	39	63	71	43	22	45	20	7	11	22	21	23	0
22	22	22	0	0	0	0	0	0	0	0	21	22	22	0	22	20	7	11	22	0	0	0
≥	>	≥	≥	≥	≥	≥	≥	≥	≡	≡	≡	≡	≡	≡	≡	≡	≡	≡	≡	≡	≡	≡
Textile technician	Road traffic technician	Agricultural technician phytopharmacist	Woodworking technician	Agricultural technician	Food technician	Veterinary technician	Physiotherapeutic technician	Catering technician	Tailor	Cook	Metal processor	CNC machine oper- ator	Auto mechanic	Welder	Hairdresser	Merchant	Shoemaker	Tailor	Carpenter	The driver of motor vehicles	Electrician	Mechanic
	IV 22	V 22 V 22	IV 22	IV 22 ician IV 22 ician IV 22 hni- IV 0	IV 22 IV 22 IV 22 IV 0 IV 0	IV 22 IV 22 IV 22 IV 0 IV 0 IV 0 IV 0	IV 22 IV 22 IV 22 IV 0 IV 0 IV 0 IV 0 IV 0 IV 0 IV 0	IV 22 IV 22 IV 22 IV 0 IV 0 IV 0 IV 0 IV 0 IV 0		IV 22 IV 22 IV 0 IV 0 IV 0 IV 0 IV 0 IV 0 III 0		IV 22 IV 22 IV 0 IV 0 IV 0 IV 0 III 0 III 0 III 21	IV 22 IV 22 IV 0 IV 0 IV 0 IV 0 III 0 IIII 22 IIII 22								IV 22 IV 22 IV 0 IV 0 IV 0 IV 0 IV 0 III 0 III 22 III 20 III 20 III 20 III 20 III 20 III 20 III 7 III 7 III 11 III 11 III 0 III 0	N

50 44 127	0	38	7	32	314 60 314	111 241 870	187	49	48	63	40	69	39	71	23	34	42	17	58	
17	0	21	0	9	09	22	44	0	22	19	20	21	18	0	22	8	10	11	7	!
≥	≥	≥	≥	≣	≥	≥	2	≥	≥	≥	2	2	≥	≡	≡	≡	≡	≡	≡	
Gymnasium	Commercialist	Physiotherapeutic technician	PTT traffic technician	The driver of motor vehicles	Gymnasium	Economic technician	Electrical technician of computer technology and automation	Mechanical technician	Road traffic technician	Textile technician	Construction techni- cian	Hotel tourism technician	Agricultural technician	Seller	Hairdresser	Locksmith	Welder	Electromechanic	Electrician	
MSS "Nord- bat-2"					Gymnasium Visoko	MSŠ "Hazim Šabanović"														
VAREŠ					VISOKO															

				230	132	172	351								541
				76	16	21	84								166
0	0	0	0	230	132	172	0	79	87	53	46	11	58	17	74
0	0	0	0	76	16	21	0	20	21	21	0	1	1	0	1
=	≡	=	≡	≥	2	2	≥	≥	≥	≥	≥	≥	≥	≥	2
Parquet carpenter	Masonry-facade-insu- lator	Textile confectioner	Cook	Madrasa graduate	Classical Gymnasium	Gymnasium	Wood finishing tech- nician	Economic technician	Electrical technician of computer technology and automation	Architectural technician	Mechanical technician for computer control of machines	Forestry technician	Agricultural technician	Construction technician	Road traffic technician
				Madresa "Osman ef. Redžović"	Franciscan Classical Gym- nasium	Gymnasi- um "Rizah Odžečkić"	Secondary technical school								Mixed High school
						ZAVIDOVIĆI									

													11051	303			
													2857	72			
72	23	33	33	42	65	34	35	62	24	23	1	10		54	24	20	25
22	11	11	12	11	22	11	11	22	11	11	0	0		24	0	0	0
2	≥	≡	≡	≡	≡	≡	≡	≡	≡	≡	≡	≡		2	≥	≥	≥
Physiotherapeutic technician	Mechatronics techni- cian	Seller	Auto mechanic	The driver of motor vehicles	Welder	Electrician	Textile confection- er-tailor	Hairdresser	Carpenter	Auto electrician	Construction and handling machine operator	Cook		Mechanical technician of CNC technology	Mechanical technician for computer control of machines (CNC)	Chemical technician-general direction	Chemical technician, biotechnology direc- tion
														JU Second- ary technical school "Hasib Hadžović" Goražde			
														GORAŽDE			
													ZDC TOTAL	ВРС			

								290				196				
								99				65				
,		13	50	37	14	24	24	139	95		26		33	23	23	18
Ć	0	0	0	0	0	24	24	42	24	0	0		19	23	23	0
	≥	≥	≥	≥	≥	≥	≥	2	2	≥	≥	≥	≡	≥	≡	≡
Chemical technology	technician	Electrical energy tech- nician	Electrical technician of informatics and computer science	Construction techni- cian	Road traffic technician	PTT traffic technician	Nurse technician	Plastic processor	Business Law technician	Electronics mechanic / electrical communi- cations	Metal cutting machine	Chef technologist	Plastic processor	Business Law techni- cian	Electronics mechanic / electrical communications	Metal cutting machine
								PI Mixed High School "Enver Pozderović" Goražde					PI Vocational high school "Džemal Bi- jedić" Goražde			

					789	328							298							
					203	124							105							
28	23	21	19	∞		84	28	15	59	103	19	20	26	49	58	25	27	10	52	51
0	0	0	0	0		25	0	15	19	26	19	20	18	20	19	0	13	0	17	18
≥	≡	≡	≡	2		2	≥	2	≡	≥	≥	2	≡	≡	≥	2	≡	≡	≥	≥
Chef technologist	CNC machine operator / welder	Ceramic mason	Tailor	Confectioner technologist		General gymnasium	Economist	Economic program- mer	Hairdresser	Nurse / technician	Pharmaceutical tech- nician	Physiotherapeutic technician	CNC operator	Locksmith	Computer technician	Mechatronics technician	Cook	Waiter	Hotel and tourism technician	Building construction technician
						High school Nikola Šop							Vocational high school Jajce							
						JAJCE														
					BPC TOTAL	SBC														

275						263							307						
86						81							69						
25	2	124	50	0	62	44	19	2	06	47	16	42	150	52	17	10	37	19	22
∞	0	40	15	6	17	10	ĸ	5	39	∞	ĸ	13	32	∞	9	0	0	10	6
≥	≡	≥	2	≥	≥	2	≥	>	≥	≥	≥	≥	≥	≥	≥	≥	≥	≡	≡
Economist	Cook	Nurse / technician	Pharmaceutical tech- nician	Medical laboratory technician	Physiotherapeutic technician	General gymnasium	Language Gymnasium	Sports Gymnasium	Economist	Commercialist	Clothing designer	Administrative Secretary	Nurse / technician	Pharmaceutical tech- nician	Physiotherapeutic technician	Dental assistant	Hotel and tourism technician	Cook	Hairdresser
High school Travnik						High school Ivan Goran Kovačić							High school Fojnica						
NOVA BILA						KISELJAK													

297									165					154						
85									55					0						
122	75	13	17	5	21	25	6	10	15	33	31	14	45	38	25	12	2	14	24	26
29	18	0	17	Z.	9	0	0	10	0	15	1	11	81	0	0	0	0	0	0	0
≥	≥	2	≥	≥	≡	≡	≡	≡	2	≥	≥	≡	≡	≥	≥	≥	≥	≡	≡	≡
General gymnasium	Economist	Vehicle and vehicle technician	Computer technician	Food technician	Cook	Heating and air conditioning installer	Auto mechanic	Car mechanic or heating and air conditioning installer	General gymnasium	Electrical technician of computer science and informatics	Road traffic technician	Hairdresser	The driver of motor vehicles	Computer technician	Road traffic technician	Vehicle and vehicle technician	Chemical technician	Electrician	Auto mechanic	CNC operator
High school Vitez									Mixed High school Vitez					High school Kreševo						
VITEZ														KREŠEVO						

	326						54							212						
	78													78						
10	39	166	6	10	15	87	16	9	2	7	11	7	7	9	13	42	20	45	39	47
0	16	22	6	0	0	31	_	0	2	_	2	2	0	9	9	15	∞	6	15	19
≡	2	2	≥	≥	≥	≥	≥	≥	≥	≥	≥	≥	≥	2	2	≥	≡	≡	≡	≡
Self-propelled construction machine operator	High school Novi Travnik	Tehničar za računar- stvo	Elektrotehničar	Automehaničar	Kozmetički tehničar	Tehničar cestovnog prometa	Theoretical direction	Pilot	Violinist	Trumpeter	Accordionist	Guitarist	Solo singer	Computer technician constructor on computer	Mechanical technician for computer control of machines (CNC)	Road traffic technician	Seller	CNC machine oper- ator	Welder / locksmith	Motor vehicle driver
	High school Novi Travnik						High school Ja- kova Gotovca							Mixed High school Novi Travnik						
	NOVI TRAVNIK																			

211										214							131	517
83										28							36	195
48	4	26	9	0	15	7	24	11	45	34	27	41	27	39	17	29	131	26
16	0	26	0	0	6	0	11	0	21	14	7	10	9	9	4	11	36	0
≥	≥	≥	2	≡	≡	≥	2	≡	≡	2	2	≥	≥	≥	≡	≡	2	≡
General gymnasium	Science Gymnasium	Road traffic technician	Vehicle and vehicle technician	Heating and air conditioning installer	Auto mechanic	Hotel and tourism technician	Catering cooking tech- nician	Cook	Hairdresser	Computer technician constructor on com-puter	Mechanical technician for computer control of machines	Economic technician	Banking technician	Agricultural technician	Auto mechanic	Welder / locksmith	General gymnasium	Welder-machine lock- smith
High school Busovača										Mixed High school Buso- vača							Catholic School Center Petar Barbaric	Mixed Second- ary technical school Travnik
BUSOVAČA																	TRAVNIK	

												238				
												93				
10	19	48	54	16	21	149	19	86	20	19	18	47	28	13	99	84
0	19	21	26	0	21	24	0	46	20	0	18	13	13	17	36	14
≥	≡	≡	≡	≡	≡	≥	≥	2	≥	≥	≥	2	≥	2	≡	≡
Computer technician-constructor	Welder, car mechanic	Welder	CNC machine oper- ator	Welder Electrome- chanic	Auto electrician, Electromechanic	Electrical technician of computer science and informatics	Electrical electronics technician	Information technolo- gy electrician	Textile confection technician	Textile technician constructor Modeller	Construction technician	Economic techni- cian-commercial technician	Business IT technician	Hotel tourism technician	Hairdresser	Seller
												Mixed secondary school of economics and catering Travnik				

447	798						311						282				
116	263						74						102				
447	159	28	48	32	30	471	120	65	13	16	79	18	52	74	73	21	49
116	39	16	21	32	30	125	23	20	13	0	18	0	13	25	18	21	25
≥	≥	≥	2	≥	≥	≥	2	≥	≥	≥	≥	=	≥	≥	≥	≥	Ξ
Madrasa graduate	General gymnasium	Philological Gymna- sium	IT Gymnasium Math- ematical Informatics Gymnasium	Laboratory technician	Dental technician	Nurse / technician	General gymnasium	Electrical technician	Computer technician	Mechatronics technician	Nurse / technician	Electrician	General gymnasium	Mechanical technician for computer control of machines	Electrical technician of computer science and informatics	Nurse / technician	Hairdresser
Elči Ibrahim -pašina ma- drasa	Mixed High school Travnik						High school Uskoplje						Mixed High school Gornji Vakuf				
							GORNJI VAKUF - USKOPLJE										

		318									
		80									
∞	5	16	43	86	34	6	30	19	12	23	15
0	0	0	18	34	6	0	0	0	0	0	0
≡	≡	2	2	2	>	2	≥	≥	2	2	≣
Auto mechanic	Welder	Computer technician constructor on com- puter	Mechanical technician programmer on CNC machines	Electrical technician of computer science and informatics	Electrical technician of computer technology and automation	Economic technician, construction techni- cian	Economic technician	Construction technician	Computer technician, computer technician and automation electrician	Electrical technician of computer science and informatics, economic technician	Renewable energy and electronics elec- trician, construction technician
		Secondary technical school Bugojno									
		BUGOJNO									

	375								522		603					
	127								158		207					
19	174	65	14	17	30	20	25	30	207	315	13	43	249	146	26	45
19	48	27	4	5	13	7	∞	15	64	94	0	22	7.1	36	30	23
≡	≥	≡	≡	≡	=	≡	≡	≡	2	≥	2	≥	≥	2		≥
Renewable ener- gy and electronics electrician, computer technician and auto- mation electrician	Vocational high school Bugojno	Vozač motornih vozila	Plinski i vodoinstalater	Operater na CNC mašini	Automehaničar	Elektroinstalater	Elektromehaničar	Prodavač	General gymnasium	Nurse / technician	General gymnasium	IT Gymnasium	Nurse / technician	Physiotherapeutic technician	Pharmaceutical tech- nician	Electrical technician of computer technology and automation
	Vocational high school Bugojno								Mixed High school Bugo- jno		Secondary Mixed school Zijah Dizdarević					
											FOJNICA					

			188					₹+	186	342		129			
								7834							
			78					2445	42	95		31			
28	σ	14	. 46	41	19	44	38		186	292	50	78	12	22	17
16	C	ာ တ	12	14	19	17	16		42	82	13	19	12	0	0
≥	≡	=	: ≥	≥	≥	≣	≡		≥	≥	≥	≥	≥	≥	≥
Wood finishing tech-	Garnenter	Auto mechanic	General gymnasium	Computer technician constructor on computer	Electrical technician IT	Welder, gas and plumber and central heating installer, car mechanic, CNC machine operator	Cook		General gymnasium	General program	Language program	Economist	Economist-business informatics	Commercialist	Administrative Officer
			Mješovita srednja škola Donji Vakuf						Gymnasium Mostar	Gymnasium fra. Grge Mar- tića		Jozo Marti- nović High School of Economics			
			DONJI VAKUF						GRAD MOSTAR						
								CBC TOTAL	HNC						

241					263					407							
75					89					116							
61	52	115	9	7	62	34	30	133	4	181	46	22	40	16	10	25	29
18	16	34	c	4	16	∞	10	34	0	40			21			25	30
≥	≥	≥	≡	≡	≥	≥	≥	≥	≡	>	2	2	≥	≥	≥	≥	≡
Electrical technician	Electrical technician	Computer technician	Electronics	Electromechanic	Building construction technician	Computer technician in construction	Geodesy and geo informatics technician	Interior architecture designer	Dry construction fitter	Nurse technician	Physiotherapeutic technician	Medical laboratory technician	Pharmaceutical tech- nician	Medical beautician	Dental nurse techni- cian	Dental technician	Hairdresser
Ruđer Boškov- ić High School of Electrical Engineering					Juraj Dal- matinac High School of Civil Engineering					Sisters of Mercy Medical School							

41 204							59 168							
	7	35	30	19	15	6	49	38	11	∞	1	19	19	7
4			14	∞	Ŋ	0	12	10	11	0	0	10	∞	
≥	≥	≥	≥	≡	Ξ	≣	≥	≥	≥	2	≥	≥	≥	
Computer techni- cian-CNC programmer	Computer technician in mechanical engi- neering	Web designer	Graphic technician designer	Car mechanic	Operator for CNC machines	Air conditioning, air conditioning and water heating installer	Road traffic technician	Logistics and forward- ing technician	Postal and telecommunications traffic technician	Communication tech- nology technician	Computer operator in traffic	Air traffic controller	Auto mechanic	
Faust Vrančić High School of Mechanical Engineering							Mostar Sec- ondary Traffic School							

211					54					54									189	218
59					13					19									38	43
98	32	64	9	23	41	11	13	_∞	∞	М	7	4	21	2	11	_	4	ĸ	189	115
8	15	21	0	5	5	4	4	0	0	М	7	4	9	_	2	0	~	0	38	20
≥	≥	≡	=	=	≥	≥	≥	≥	≥	_	_	_	≥	≥	≥	≥	≥	≥	≥	≥
Hotel and tourism technician	Nutritionist technician	Cook	Waiter	Special department	Painting designer	Cypriot designer	Graphic designer	Textile and clothing designer	Industrial and adver- tising designer	Preparatory music singer	Il preparatory theoretical direction	Il preparatory music singer	Theoretical direction	Musician singer	Musician	Musician violinist	Musician flutist	Musician clarinettist	General gymnasium	Philological
High school of tourism and catering					Gabrijel Jurkić High School of Fine Arts					Music school Ivan pl. Zajc									Gymnasium Mostar	Druga Gymna-

		161					358							265				
		44					80							8				
94	6	24	48	49	6	31	160	64	21	20	43	26	24	40	57	11	89	22
41	6	14	13	6	0	∞	40	0	0	20	20	0	0	18	81	0	18	9
2	≥	≥	≥	2	≡	≡	≥	≥	≥	≥	≥	≥	≥	≥	≥	≥	≥	≡
Mathematical-Informatics Gymnasium	Language and transla- tion Gymnasium	Economic and IT tech- nician	Economic technician	Hotel tourism techni- cian	Waiter	Cook	Nurse technician	Pharmaceutical tech- nician	Dental nurse	Dental technician	Laboratory technician	EU VET Medical Tech- nician 3	Physiotherapeutic technician	Mechanical technician for computer construction	Mechanical technician programmer on CNC machines	Robotics technician	Road traffic technician	Auto mechanic
		PI High School of Economics and Tourism					Medical high School							PI High School of Mechanical Engineering and Traffic				

			61	340				213				29				
			242	86				49				27				
15	40	12	61	228	81	17	14	54	99	81	12	12	12	34	c	ĸ
Ю	18	0	242	59	25	0	14	16	16	17	0	12	12	0	c	0
≡	≡	≡	2	≥	≥	≥	≡	≥	2	2	≡	2	≡	≡	≡	≡
CNC machine oper- ator	The driver of motor vehicles	Construction and handling machine operator	SSS	Electrical information technology technician	Electrical information technology technician	Tehničar telekomunikacija	Elektromonter mreža i postrojenja	Architectural techni- cian	Construction IT tech- nician	Interior design tech- nician	Ceramist	Cosmetic technician	Hairdresser	Hairdresser	PKV florist-gardener	PKV tailor
			Karadjoz-beg's madrasa	Pl Secondary Electrical				PI Secondary Construction School Mostar				PI Secondary Textile and Agricultural School				

	330												204							109
	87												09							30
C	92	51	36	27	39	9	13	2	6	10	54	4	59	35	36	10	35	24	2	63
0	18	0	24	0	15	0	0	5	6	0	16	0	14	∞	13	9	6	10	0	13
≡	≥	≥	2	≥	≥	≥	≥	=	=	≡	≡	≡	≥	≥	2	=	≡	≡	≡	≥
Skilled tailor	General gymnasium	Power technician	Computer technician in mechanical engi- neering	Hotel and tourism technician	Economist	Agricultural technician-general direction	Agricultural techni- cian-phytopharmacist	Auto mechanic	CNC operator	Electromechanic	Cook	Waiter	General gymnasium	Economist	Computer technician in mechanical engi- neering	Cook	Economist	Electrical technician	Cook	General gymnasium
	High school Čapljina												High school Stolac							
	ČAPLJINA												STOLAC							

	266									559									215		
	78									192									46		
11	10	∞	29	23	2	18	79	4	06	209	59	99	105	74	19	6	7	11	63	46	
11	0	0	20	5	0	10	15	0	28	09	14	42	27	32	11	0	0	9	6	∞	
≥	≡	≡	≡	≥	≡	Ξ	≥	≡	≥	2	≥	≥	2	Ξ	≡	≡	Ξ	≡	2	2	
Hotel and tourism technician	CNC operator	Locksmith	Plumber	Economist	Seller	Cook	Hotel and tourism technician	Hairdresser	General gymnasium	General gymnasium	Economist	Business Informatics	Hotel and tourism technician	Cook	Waiter	Seller	Auto mechanic	Plumber	General gymnasium	Hotel tourism technician	
	High school Prozor									High school dr.fra. Slavko Barbarić in Čitluk									High school Jablanica		
	PROZOR									ČITLUK									JABLANICA		

	897																						6711
	217																						2030
41	142	18	84	10	21	15	15	141	21	35	82	18	48	38	30	38	28	24	23	14	20	32	
6	20	18	19	0	0	0	0	37	21	0	20	0	17	0	11	∞	2	6	11	9	9	б	
=	2	≥	≥	≥	≥	≥	≥	≥	2	≥	≥	≥	≥	≡	≡	≡	≡	≡	≡	≡	≥	≥	
Cook	General gymnasium	Mathematical-Informatics Gymnasium	Nurse technician	Obstetric gynaecologi- cal nurse technician	EU VET agricultural technician	Agricultural technician	Food technician	Economic technician	Hotel and tourism technician	Tourist technician	Electrical energy technician	Electrical computer technician	Mechanical technician	Wigmaker	Electromechanic	Seller	Locksmith	Auto mechanic	Cook	Waiter	Theoretical direction	Instrumental direction	
	PI "HIGH SCHOOL" Konjic																						
	KONJIC																						
																							HNC TOTAL

546															570						
184															12						
18															151						
27	65	97	48	92	64	22	28	10	19	14	21	22	15	2	28	92	101	88	144	26	59
27	0	24	31	31	0	0	28	0	19	0	0	22	0	2	10	23	31	22	30	10	25
≥	≥	≥	≥	≥	≥	≥	≥	≡	≡	≡	≡	≡	≡	=	≥	≥	≥	≥	≥	≡	≡
						-	⊑														
Mechatronics technician	Electrical technician	Computer technician for mechanical engi- neering	Pharmaceutical tech- nician	Economist	Commercialist	Logistics and forward- ing technician	Road traffic technician	Electrician	Auto mechanic	CNC operator	Cook	Waiter	Hairdresser	Auxiliary salesman	Economist	Economic technician	Mechatronics technician	Agro tourism	Medical technician	Carpenter	Chef / waiter
Vocational high school															Vocational high school Ruđer Boškov- ić Ljubuški						
ŠIROKI BRIJEG Vocational high schoo															LJUBUŠKI						
ZHC																					

			Auxiliary salesman	≡	0	~		
	GRUDE	High school Antun Branko Šimić	Economic technician	≥	27	92	116	396
			Commercial technician	2	0	15		
			Construction technician	≥	14	57		
			Geodetic technician	≥	14	14		
			Nurses	≥	34	135		
			Pharmaceutical tech- nician	≥	18	57		
			Chef / waiter	≡	6	26		
	POSUŠJE	Vocational high school Posušje	Economist	≥	39	125	143	482
			Computer technician in mechanical engi- neering	≥	10	88		
			Electrical technician	≥	20	20		
			Nurse - technician	≥	30	97		
			PT technician	≥	0	25		
			CNC operator	≡	30	68		
			Cook	≡	12	29		
			Hairdresser	Ξ	0	9		
			Auxiliary salesman	=	2	С		
WHC TOTAL							594	1994
CS	SARAJEVO	First Gymnasium	Gymnasium	≥	118	450	142	497
			The field of informa- tion technology	≥	24	47		

575				553		310		442			236	460	
158				142		85		111			47	111	
343	161	25	46	439	114	191	119	183	166	63	236	275	185
64	57	13	24	116	26	45	40	43	45	23	47	29	44
2	≥	≥	≥	<u>≥</u>	≥	<u>≥</u>	≥	2	<u>≥</u>	<u>≥</u>	≥	≥	≥
Gymnasium	Gymnasium-IB middle Year Program	Bilingual area (b / h / s and German)	The field of information technology	Gymnasium	The field of informa- tion technology	Gymnasium	The field of information technology	Gymnasium	Gymnasium-sports orientation	The field of information technology	Gymnasium	Gymnasium Curricu- lum A	Gymnasium by NPIP Cambridge Interna- tional Center
Second Gym- nasium				Third Gymna- sium		Fourth Gym- nasium		Fifth Gymna- sium			Gymnasium Dobrinja	The first Bos- niak Gymna- sium	

222	494				133			164					
09	135				36			49					
222	234	87	51	122	54	7	72	33	28	22	30	22	29
09	4,	12	7	23	9	3	7	6	∞	∞	∞	∞	∞
9	7	2	_	2	←	(-)	_	31	~	~~	~~		~~
2	≥	2	≥	2	≥	≥	≥	≥	≥	2	≥	≥	≥
	Gymnasium	Bilingual area (b / h / s and German)	Bilingual area (b / w / s and French)	The field of information technology	A general musician	Ballet dancer	A solo musician	Visual graphic artist for advertising graphics	Art technician for graphic art equipment and book illustration	Art design technician in metal	Art technician for applied painting	Art technician for applied sculpture	Art technician for textile design
School Cen- ter-General Real Gymna- sium	Gymnasium Obala				Secondary school of music			High school of applied arts					
	- IV 60 222 60	Gymnasium IV 74 234 135	Gymnasium IV 60 222 60 Gymnasium IV 74 234 135 Bilingual area (b / h / s and German) IV 21 87 87	Gymnasium IV 60 222 60 Gymnasium IV 74 234 135 Bilingual area (b / h / s and German) IV 21 87 IV Bilingual area (b / w / s and French) IV 17 51	Gymnasium IV 60 222 60 Gymnasium IV 74 234 135 Bilingual area (b / h / s and German) IV 21 87 Bilingual area (b / w / s and French) IV 17 51 The field of information technology IV 23 1122	Gymnasium IV 60 222 60 Gymnasium IV 74 234 135 Bilingual area (b / h / s and German) IV 21 87 IV Bilingual area (b / w / s and French) IV 17 51 Fraction technology The field of information technology IV 23 122 IV A general musician IV 16 54 36	Gymnasium IV 60 222 60 Gymnasium IV 74 234 135 Bilingual area (b / h / s and German) IV 21 87 135 Bilingual area (b / w / s and German) IV 17 51 7 The field of information technology IV 23 122 86 A general musician IV 16 54 36 Ballet dancer IV 3 7 7	Gymnasium IV 60 222 60 Gymnasium IV 74 234 135 Bilingual area (b / h / s and German) IV 17 87 135 Bilingual area (b / w / s and German) IV 17 51 7 The field of information technology IV 23 122 8 A general musician IV 16 54 36 A solo musician IV 3 7 72	Gymnasium IV 60 222 60 Gymnasium IV 74 234 135 Bilingual area (b / h / s and German) IV 21 87 135 Bilingual area (b / w / s and German) IV 17 51 51 The field of information in technology IV 23 122 8 A general musician IV 16 54 36 A solo musician IV 17 72 A solo musician IV 17 72 A solo musician in graphic artist for advertising graph-ics IV 9 33 49	Gymnasium IV 60 222 60 Gymnasium IV 74 234 135 Bilingual area (b / h / s and German) IV 17 51 87 Bilingual area (b / w / s and German) IV 17 51 8 The field of information technology IV 23 122 36 A general musician IV 16 54 36 A solo musician IV 3 7 7 A solo musician IV 9 33 49 Mrt technician for graphic art equipment and book illustration IV 8 28	Gymnasium IV 60 222 60 Gymnasium IV 74 234 135 Bilingual area (b / h / s and German) IV 21 87 135 Bilingual area (b / w / s and German) IV 17 51 7 8 The field of informa-tion technology IV 23 122 7 8 36 A general musician IV 16 54 36 36 8 A solo musician IV 17 72 7 A A A A A A A B A A B A A B A B A B A B B A B B A B	Gymnasium IV 60 222 60 Gymnasium IV 74 234 135 Bilingual area (b / h / s and German) IV 21 87 17 Bilingual area (b / w / s and German) IV 17 51 7 Bilingual area (b / w / s and German) IV 17 51 7 The field of information echnology IV 23 122 36 A general musician IV 3 7 36 A solo musician IV 3 7 7 A solo musician IV 3 7 7 A solo musician for advertising graphic artist IV 9 33 49 Ics Art technician for graphic art equipment and book illustration IV 8 22 1 Art technician for and design technician for and book illustration in metal IV 8 33 49 Art technician for applied painting IV 8 33 8 9	Gymnasium IV 60 222 60 Gymnasium IV 74 234 135 Bilingual area (b / h / s and German) IV 21 87 135 Bilingual area (b / w / s and German) IV 17 51 7 8 The field of information echnology IV 16 54 36 36 8 36 The field of information echnology IV 17 72 <td< td=""></td<>

		572			296		582							
		143			09		178							
42	33	195	187	190	177	119	92	91	104	81	51	31	33	66
12	14	48	47	48	33	27	20	20	35	25	23	12	10	33
≡	=	≥	≥	2	≥	≥	≥	≥	≥	2	2	≥	≥	2
Electromechanic	Electrician	Electrical technician of computer science and informatics	Electronics and auto- mation electrician	Telecommunication electrician	Computer technician constructor on com-puter	Mechanical technician for computer control of CNC machines	PTT traffic technician. Unique profession with an elective area - postal technology communication technology	Road traffic technician - general - internal transport	Auto mechanic	Auto electrician	The driver of motor vehicles	Car body painter	Car paint	Construction and handling machine operator
		Electrical Engineering High School			Secondary Me- chanical Tech- nical School		High school for traffic and communica- tions							

311										229								
103										29								
28	30	45	30	26	39	44	24	25	20	32	25	12	36	31	21	26	39	7
4	_	7	11	12	12	21	12	13	10	∞	4	0	11	12	2	6	11	7
≥	≥	≥	≡	≡	≡	≡	≡	=	=	≥	≥	≥	≡	≡	=	≡	≡	≡
High school metal occupations	Mašinski tehničar-i zborno područje zrakoplov i motor	Tehničar mehatronike	Plinski i vodoinstalater	Automehaničar	Instalater centralnog grijanja	Operator na CNC alatnim mašinama za obradu skidanjem strugotina	Zlatar draguljar	Optičar	Zavarivač	Electronics and automation electrician	Logistics and forward- ing technician	Railway traffic techni- cian	Electronics telecom- munications	Electrician	Welder	Hydraulic and pneu- matic mechanic	Traffic transport op- erator	Rail vehicle mechanic
High school metal occupa- tions										Railway School Center								

414					381	377							
117					16	104							
133	82	133	32	34	381	91	79	48	17	40	30	39	33
23	23	46	12	13	91	24	18	9	7	12	13	12	12
≥	≥	≥	≡	≡	≥	2	≥	≥	≥	≡	≡	≡	≡
 Architectural technician	Construction technician	Geodetic techni- cian-geometer	Ceramist-floor layer	Painter	Graphic technician	Woodworking technician - programmer on CNC machines	Environmental tech- nician	Forestry technician	Horticulture techni- cian	Nursery	Place	Carpenter	Upholsterer-decora- tor
Secondary Civil Geodetic School					Secondary technical school of graphic design and multime- dia technolo- gies	High school for environ- ment and wood design							

198 648											69 265				86 314				
87	84	98	93	32	29	49	34	75	75	4	29	91	85	22	101	06	29	94	
24	22	20	23	11	∞	24	12	25	25	4	23	20	25	~	24	12	∞	42	
2	<u>N</u>	an IV	≥	≡	≡	≡	≡	≡	≡	≡	2	tor	≡	≡	al ool IV	ar IV	≥	≡	-
Food technician	Veterinary technician	Nutritionist technician	Cosmetic technician	Fruit-grower-wine- maker	Dairy	Florist-gardener	Butcher	Baker	Hairdresser	Farmer	Textile and clothing designer	Textile technician modeller - constructor	Tailor	Dry cleaner	Business-commercial and trade high school	Komercijalni tehničar	Aranžer	Trgovac	Vogošća High School
High school of agriculture, nutrition, veterinary and service activities											High school for leather, textiles and design				Business-com- mercial and trade high school				Vogošća High

								658												
								189												
	75	80	38	44	24	0	21	82	78	75	73	50	25	53	21	22	40	55	24	09
	15	81	10	13	∞	0	∞	14	17	18	23	12	12	18	10	11	13	15	0	26
	≥	2	≡	≡	Ξ	≡	≡	≥	≥	≥	≥	≡	≡	≡	≡	≡	≡	≡	≡	≡
Computer technician	constructor on com- puter	Mechanical technician for computer control of machines (CNC)	Seller	Auto mechanic	Car body shop	Welder / locksmith	Operator on CNC machine tools for scraping	Gymnasium - general gymnasium	Computer technician-constructor	Architectural techni- cian	Tourist technician	Auto mechanic	Gas and plumber	Locksmith	Carpenter	Painter	Cook	Textile confectioner	Ceramist-floor layer	Hairdresser
								Hadžići High School Center												

427									488	85	28			14
113									118	27	∞			12
76	93	92	37	16	27	21	46	19	488	85	12	12	4	6
23	24	17	12	0	13	0	12	12	118	27	е	5	0	m
≥	≥	≥	≡	=	≡	=	≡		≥	≣	≣	=	=	2
Gymnasium-general gymnasium	Gymnasium-area of information technol- ogies		CNC machine oper- ator	Car mechanic	Welder / locksmith	Seller	Hairdresser	Beautician	Mualim / a	Auxiliary florist, decorator, painter, cook, waiter, bookbinder, advertising graphic artist	Physiotherapeutic technician	Business Secretary	Telephone operator	Textile technician model-constructor, mechanical technician, graphic technician,
High School Center "Nedžad Ibriši- mović" Ilijaš									Gazi-Husrev- beg Madrasa	School for secondary vocational education and work training	Center for blind and partially sighted children and youth			Hearing and Speech Re- habilitation Center

	101	128	26		14	116	52
	19	16	9		5	24	13
5	101	128	12	14	14	116	52
O	19	16	0	9	5	24	13
≡	≥	≥	≥	2	2	≥	2
Textile technician model-constructor, mechanical technician, graphic technician, graphic technician	Gymnasium	Gymnasium	Gymnasium	Gymnasium area of information technology	Gymnasium	Gymnasium	Gymnasium
	PU Gymnasi- um "Richmond Park College" Sarajevo	PU Interna- tional Gymna- sium" Rich- mond Park International Secondary School"	Persian-Bos- nian college with boarding school		Private in- ternational Gymnasium " Bloom"	Gymnasium of the Univer- sity Sarajevo School of Science and Technology	International Gymnasium SEDEF

4	13859	111				570								115				
	3653	24				148								31				
14		57	17	17	20	25	21	28	158	9/	80	144	8	38	41	15	∞	13
7		7	17	0	0	∞	∞	16	41	23	21	31	0	18	0	0	0	13
≥		≥	≥	≥	≥	≥	≥		≥	≥	≥	≥	≥	≥	>	≡	≡	≡
Gymnasium		General gymnasium	Commercialist	Forestry technician	Economic technician	Electrical engineering directions	Mechanical engineer- ing directions	Catering and tourist directions	Electro technical	Mechanical	Catering and tourist directions	Medical	Agricultural food	Economic and business information	Economist	Seller	Locksmith	Tailor
Private institution School Center Marrif Schools of Sarrajevo (Schools "Maarif" Sarajevo		High school "Kupres"				Vocational high school Silvije S. Kran- jčević								High school Drvar				
		KUPRES				FIVNO								DRVAR				
	CS TOTAL	C 10																

446																	290	122			
116																	70	24			
26	34	14	21	57	27	11	19	17	26	28	18	19	45	46	17	21	290	38	23	22	39
26	13	14	21	23	∞	11											70	m	∞	2	∞
≥	≥	≥	≥	≡	≡	≡	≡	≡	≡	≡	≡	≥	≥	≥	≥	>	≥	2	≥	≥	≥
Physiotherapeutic technician	Power technician	Mechanical technician	Chemical technician	Electromechanic	Locksmith	Auto mechanic	Food technician	Agricultural technician	CNC programmer	Seller	Hairdresser	Agro tourism technician	Mechatronics techni- cian	Nurse	Cook	Economist	General direction	Economist-business informatics	Economic program- mer	Economist banking and insurance	Commercialist
Vocational high school Tomislavgrad																	Marko Marulić Gymnasium	Secondary School of Eco- nomics Livno			
TOMISLAV- GRAD																		LIVNO			

		Gymnasium Livno	General direction	≥	99		99	0
	GLAMOČ	Secondary school "Tin Ujević"	General gymnasium	2	к	25	18	82
			Agro tourism technician	≥	0	∞		
			Forestry technician	≥	15	49		
C10 TOTAL							497	1736
FBIH UKUPNO							18.595	086.99

