



ŽUPANIJSKI ZAVOD
ZA UPOŠLJAVANJE
LIVNO

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ANALYSIS OF VACANCIES COLLECTED BY THE CANTONAL EMPLOYMENT SERVICE LIVNO DURING 2020



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INTRODUCTION

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INTRODUCTION

The need to consolidate information on published jobs has been cited as a priority of the European Union for Bosnia and Herzegovina in the last few years.

The Report on Bosnia and Herzegovina for 2019¹ states that BiH does not have a central database as a precondition for joining EURES - the European Network for Cooperation of Employment Services. It is stated that it is necessary to consolidate the data with the information published through public employment services, i.e. to create one point where all that information would be available. In this way, data on labour demand would be consolidated.

In the Report on Bosnia and Herzegovina for 2020 and 2021, accompanying the document Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions (Communication on the EU Enlargement Policy)², ABILITY TO ASSUME THE OBLIGATIONS OF MEMBERSHIP, relating to Chapter 2 "Freedom of movement for workers", it is stated that in the reporting period no progress was made regarding the development of a nationwide database of vacancies.

This issue remained one of the few non-harmonised issues within the Working Group on Free Movement of Workers (Acquis Chapter 2).

In order to carry out this task, the project team, in cooperation with the Cantonal Employment Service Livno, collected available data on announced job vacancies submitted

by employers to the Service, recorded them in their database and analyzed them.

Unlike Republika Srpska, there is no consolidated database of advertised jobs in the Federation of BiH, so in order to make progress towards the EURES platform and EU recommendations, it is primarily necessary to consolidate advertised jobs at the level of the Federation of BiH. Technical preconditions for consolidation exist, i.e. a single information system has been established, in which advertisements are still not entered or they are not entered to an adequate extent.

The main goal of this analysis is to review the real situation in the Federation of BiH, in order to create preconditions for creating a single database on vacancies, which is a preliminary work to achieve the final goal - a nationwide database on vacancies.

This report is a continuation of the labour market research, which, in its first phase, was based on a survey of employers for the purpose of creating labour market research in the Federation of BiH 2020/2021.

1 COMMISSION STAFF WORKING DOCUMENT Analytical Report Accompanying the document Communication from the Commission to the European Parliament and the Council Commission Opinion on Bosnia and Herzegovina's application for membership of the European Union

2 RADNI DOKUMENT OSOBLJA KOMISIJE Izvještaj o Bosni i Hercegovini za 2020. uz dokument Saopštenje Komisije Evropskom parlamentu, Vijeću, Evropskom ekonomskom i socijalnom odboru i Odboru regija Saopštenje o politici proširenja EU-a za 2020.

Structure of economy in Canton 10

After the decline in the number of business entities in 2017, Canton 10 has seen a continuous increase in the number of business entities, and in 2019 their number amounted to 3574, which is 3.2% of the total number of business entities in the Federation of BiH¹. At the end of 2020, their structure was the following:

- Independent legal entities 2,232
- Units within legal entities 1,032
- 1,375 natural persons – craftsmen/traders.

The total number of registered companies in Canton 10 predominantly includes small companies, over 85% of the total.

According to data from statistical reports, the average number of employees in Canton 10 in 2020 was 10,869, i.e. 37 employees fewer than in 2019, when that number was 10,906, and the predominant fields are agriculture, trade, public administration and education. The concentration of development potential is visible in the fact that in 2019, 642 companies (or about 14% of the total number) that submitted their financial statements to the FIA (FBiH) employed a total of 5,971 people, which is more than half of the total number of employed persons in the area of this Canton².

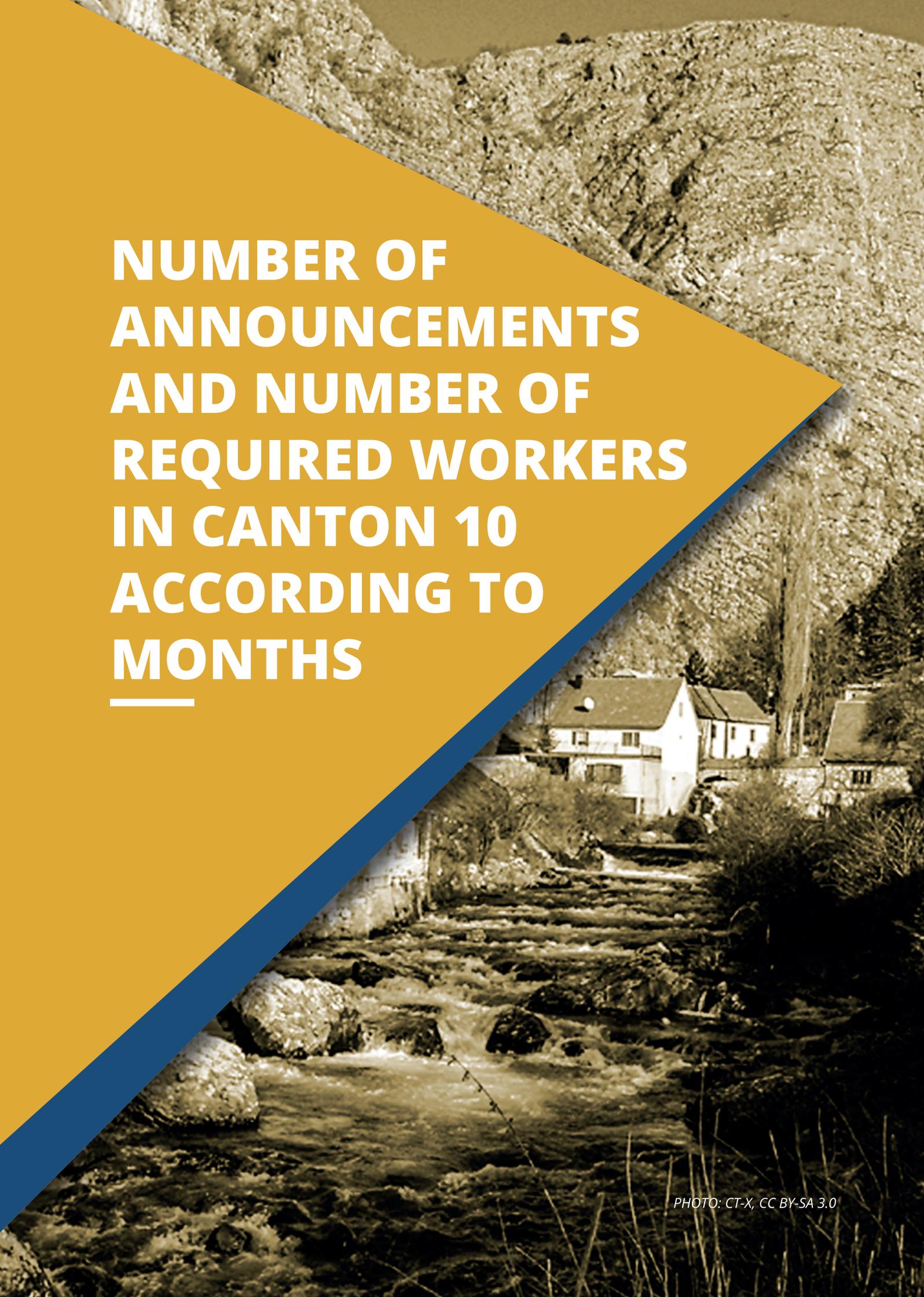
Most independent legal entities come from the wholesale and retail trade sector; repair of motor vehicles and motorcycles (429), followed by manufacturing (285) and agriculture, forestry and fishing (189). Regarding the sectoral structure of companies registered as trades in Canton 10, they predominantly operate in the activities of providing accommodation and food preparation and serving (25.8%), agriculture, hunting and forestry (22.1%), and wholesale and retail trade (21.6%). Those predominant activities have not changed in recent years. The largest number of registered trades in 2019 are in the area of the City of Livno (839), followed by Tomislavgrad with 742 trades³.

Canton 10 is faced with the problem of labour shortage, which is becoming more pronounced and there are more and more cases of workers being hired from other parts of Bosnia-Herzegovina, but also of labour shortage slowing down or hindering economic development.

1 Development Strategy of Herzeg-Bosnia Canton 2021-2027

2 Ibid.

3 Ibid.

A scenic landscape featuring a river with white-water rapids flowing through a valley. In the background, there are large, rugged mountains. In the middle ground, several houses are visible, including a prominent white two-story house with a dark roof. The foreground shows some reeds and grasses. A large yellow triangle with a blue border is overlaid on the left side of the image, containing the title text.

NUMBER OF ANNOUNCEMENTS AND NUMBER OF REQUIRED WORKERS IN CANTON 10 ACCORDING TO MONTHS

PHOTO: CT-X, CC BY-SA 3.0

Number of announcements and number of required workers in Canton 10 according to months

In the course of 2020, according to the data of the Cantonal Employment Service, 1,791 persons were deleted from the records due to acquiring employment¹. Nevertheless, the total number of employed persons on 31 December 2020 was 10,869 and it is lower than it was in 2019 by 37 people.

The analysis of the reported employment needs shows that in 2020 there were a total of 84 announcements seeking workers through the Livno Cantonal Employment Service, with 35 legal entities (companies, institutions, associations, etc.) looking for a minimum² of 291 workers. Taking all months into account, an average of about 24.3 workers per month was required, while the average number of announcements was about 7 per month.

Table 1. Total and average number of announcements and required workers

Category	Announcements	Number of employees
Total	84	Minimally 291
Monthly average	7	24.3
Daily average	0,23	0.8

Most announcements were published in November 2020 (20.9%). The largest number of required workers was in May 2020, when 27.5% of the total number of required workers throughout the year were requested.

Table 2. Total and average number of announcements and required workers

Month	Number of announcements	Percent	Number of required workers	Percent
January	6	6,6%	26	8,9%
February	8	8,8%	21	7,2%
March	2	2,2%	4	1,4%
April	2	2,2%	3	1,0%
May	2	2,2%	80	27,5%
June	5	5,5%	6	2,1%
July	6	8,8%	11	3,8%
August	13	17,6%	34	11,7%
September	7	7,7%	16	5,5%
October	9	9,9%	29	10,0%
November	17	20,9%	47	16,2%
December	7	7,7%	14	4,8%
Total	84	100,0%	291	100,0%

1 Actual statistic - fizz.ba

2 One announcement did not specify the exact number of workers, but only state „several workers“. Since the description mentioned three jobs for which workers were required, it is presumed that it was an announcement for three workers.

When interpreting the data, it should be taken into account that in 2020 the labour markets were affected by the COVID-19 pandemic, especially in the period from March to June, which is particularly evident in the small number of job vacancies, with the exception of the previously mentioned month of May, during which, despite the small number of announcements, a large number of workers were required.

Number of announced job vacancies and number of required workers in Canton 10 by type of company

In the analysis of job vacancies published through public employment services, it is extremely important to understand their structure, primarily by type of employers who report to public employment services. Employers represent clients of public employment services and some have an obligation to advertise jobs through the services, which primarily refers to the public sector. Other employers coming from the private sector advertise positions through public employment services with the intention of finding workers, and have no obligation to do so.

What is specific of the database of announced job vacancies submitted by the Livno Cantonal Employment Service is the fact that this database contains not only announcement submitted by employers to the Service, but also those collected by employees of the Service through a market analysis and published on the website and bulletin boards, in an effort to make it easier for unemployed persons to access information on job vacancies.

With the intention of separating the public and private sectors, which were not separated in the database, the researchers tried to make the most adequate possible division. All companies that had d.d., d.o.o. or trade in their name were classified as private, while companies identified as institutions, public companies, preschools, municipalities and the like in their name were classified as belonging to the public sector. In cases where a description of this nature was lacking, the Bisnode web service¹ was used with the aim of identifying the legal status of the companies.

As can be seen in the table below, the largest number of announcements and the number of workers sought through the Livno County Employment Service refers to the public sector.

Table 3. Number of announcements and required workers according to the type of legal entity

Sector	Number of announcements	Percent	Number of required workers	Percent
Public sector	51	60.7%	183	62,9%
Private sector	33	39.3%	108	37,1%
Total	84	100.0%	291	100,0%

¹ Bisnode is the largest provider of analytical data in Europe, specializing in data processing and providing insight into information, including the business sector register

Table 3 shows that about 61% of job vacancies belong to the public sector, and the fact that 62.9% of the requested workers referred to the public sector also shows a significant share of the public sector in the structure of job vacancies.

Such a trend seems to be predominant, as there is an obligation on part of the public administration to publish their announcements on the Service's website. In the activity 'Public Administration and Defense; Obligatory Social Security', the number of employees increased from 1,484 to 1,540 in 2020¹. A random review of announcements on 12 August 2021 showed that out of 8 available announcements, 6 belonged to public administration, and only 2 to private companies.

1. Ministry of Defense of BiH 12/07/2021
2. Cantonal Ministry of Justice and Administration 12/07/2021
3. Racks Production Bosnia Jajce 08/07/2021
4. Public announcement for filling vacancies in the Cantonal Ministry of the Interior 02/07/2021
5. Public announcement for hiring employees - Health Center Livno 02/07/2021
6. Čapljina Mills - Salesperson 01/07/2021
7. Health Center Drvar - Lawyer 01/07/2021
8. Public tender for the recruitment of civil servants in the Municipality of Tomislavgrad 01/07/2021

1 Canton 10 in numbers 2021 - fzs.ba

Required level of education

The required level of education is particularly important in understanding the market within which the Service operates. The most significant problem in the analysis was the indication of several different levels of education within one announcement, and the impossibility of classifying which education refers to which occupation. In these cases, there is an entry showing different combinations. In this context, it is possible that there is a discrepancy in the results, but it cannot be greater than the number of announcements and the number of required workers who are among the combined levels of education. Other problems were mostly caused by missing data, i.e. the fact that information was not provided in announcements.

Table 4. Number of required workers by education level

Level of education	Number of announcements	Percent	Number of required workers	Percent
University education ¹	47	58,2%	102	36,1%
Skilled	7	7,7%	96	33,0%
Secondary school	15	16,5%	42	14,4%
Non-skilled	4	4,4%	7	2,4%
Two-year post-secondary education	1	1,1%	1	0,3%
Different combinations	3	3,3%	9	3,1%
Missing information	6	7,7%	33	11,3%
Announcement did not require a specific level of education	1	1,10%	1	0,34%
Total	84	100,00%	291	100,00%

In conclusion, we can say that the required level of education in Canton 10 most often implies a university degree (36.1% of all required jobs, or 58.2% of all announcements), followed immediately by skilled workers (33.0% of all required jobs and 7.7% of advertisements).

1 University education also includes descriptions that state "relevant professional and pedagogical education" (with or without a state exam)

Public companies and institutions

In a significant number of vacancies, the employer was looking for workers whose level of education was described as “appropriate professional and pedagogical education (passed professional exam)”, in a total of 29.4% of vacancies and 21.3% of required workers, and under the assumption of researchers, under higher education, because it is most likely an application for filling vacancies in a certain educational institution. Under this assumption, in 36 vacancies, 73 employees with a university degree were in demand (39.9% of all requested positions and 70.6% of all vacancies).

Surprisingly, in public companies, the most important occupations require skilled workers and they make up 5.9% of all announcements and 45.4% of all required workers. It is indicative that such a large number of skilled workers is sought in only three announcements, so it is probably an exception, not a rule, and that trend can probably not be expected in the future. At the end of May 2020, the Ministry of Defense issued a call for 79 workers (for the position of infantry, liaison), with the required level of education being skilled or medium-skilled workers.

In a significant number of announcements, the employers were looking for workers whose level of education was described as “relevant professional and pedagogical education (state exam passed)” - in a total of 29.4% of announcements and 21.3% of required workers - and the researchers assumed that this category implied higher education, because it is most likely an announcement for filling vacancies in an educational institution. Under this assumption, 73 employees with a university degree were sought in 36 advertisements (39.9% of all requested positions and 70.6% of all advertisements).

Table 5. Number of required workers by degree of occupation for public companies and institutions

Education level	Number of announcements	Percent	Number of required workers	Percent
Skilled worker	3	5,9%	83	45,4%
University education	36	70,6%	73	39,9%
Secondary education	3	5,9%	8	4,4%
Non-skilled	3	5,9%	6	3,3%
Information missing	2	3,9%	3	1,6%
Two-year post-secondary education	1	2,0%	1	0,5%
Different combinations	3	5,9%	9	4,9%
Total	51	100,0%	183	100,0%

Private companies

Among private companies (d.o.o., d.d. and independent entrepreneur), announcements and jobs requiring secondary education as the minimum are predominant (36.4% of all advertisements and 31.5% of all required workers). However, for a significant number of required workers (27.8%) and announcements (12.1%), this data was not entered (it is missing), while in only one case the announcement did not request a specific level of education.

Table 6. Number of required workers according to education level, private companies

Education level	Number of announcements	Percent	Number of required workers	Percent
Secondary school	12	36,4%	34	31,5%
Information missing	4	12,1%	30	27,8%
University degree	11	33,3%	29	26,9%
Skilled worker	4	12,1%	13	12,0%
Non-skilled worker	1	3,0%	1	0,9%
The announcement did not specify any education level	1	3,0%	1	0,9%
Total	33	100,00%	108	100,00%

The assumption is that, whenever not specified, a particular level of education is not a precondition for performing the job, so it can generally be concluded that, out of 33 announcements, 11 of them required higher education, and out of 108 positions, 29 employees were required to have a university degree.

Number of announcements according to the form of employment

The submitted database also showed certain shortcomings in the analysis of the form of employment. Namely, data on the form of employment are missing for the largest number of required workers (40.5%); it refers about 13.2% of announcements, requiring 118 workers. Number of fixed-term employments (32% of all required workers) is higher than the number of positions implying indefinite employment (23.7%). The share of fixed-term and indefinite employment is certainly higher if data were collected for all announcements.

Table 7. Number of announcements and number of required workers according to the form of employment – all companies

Form of employment	Number of announcements	Percent	Number of required workers	Percent
No information	12	13,2%	118	40,5%
Not specified	4	4,4%	11	3,8%
Indefinite employment	32	36,3%	69	23,7%
Fixed-term employment	36	46,2%	93	32,0%
Total	84	100,0%	291	100,0%

When the form of employment is viewed separately for the private and public sectors, it can be seen that in both cases fixed-term employment dominates, but the results should be taken with reserve given that data for a significant number of announcements are missing.

Table 8. Number of announcements and number of required workers according to the form of employment - public and private sector

Public sector	Number of announcements	Percent	Number of required workers	Percent
No information	4	7,4%	87	47,5%
Fixed-term employment	25	50,0%	53	29,0%
Indefinite employment	22	42,6%	43	23,5%
Total	51	100,0%	183	100,0%

Private sector	Number of announcements	Percent	Number of required workers	Percent
Fixed-term employment	11	33,3%	40	37,0%
No information	8	24,2%	31	28,7%
Indefinite employment	10	30,3%	26	24,1%
Not specified	4	12,1%	11	10,2%
Total	33	100,0%	108	100,0%

Of the total number of announcements, 92.9% specify the required skills. The remaining 7.1% do not explicitly state any required skills. Skills were listed in the tables in a single cell, separated by commas. In order to be able to analyze them, it was necessary to create special variables. After preparing the data, an analysis of the number of announcements was done.

After preparing the data for analysis, the results of the skills analysis are as follows:

- in 35.7% of announcements, employers explicitly asked that employees have work experience (up to six months, up to a year, desirable work experience or work experience in performing specific jobs),
- in 20.2%, they requested the possession of a category B or C driver's license,
- in 19.0%, they requested computer skills,
- in 16.7% of cases, candidates were required to have passed the state exam,
- English language proficiency was requested in 9.5% of the total number of announcements.

Interestingly, one application explicitly states that "a candidate must not have work experience in the profession".

Table 9. Number and percent of announcements requiring special skills

Required skills	Number of announcements	Percent
Work experience	30	35,7%
Driving license	17	20,2%
Computer skills	16	19,0%
Examination passed	14	16,7%
Knowledge of English	8	9,5%
Proof of education	4	4,8%
Communicativeness	2	2,4%
Independence	2	2,4%
Team worker	2	2,4%
Knowledge of German	1	1,2%
Certified accountant	1	1,2%
Certificate of professional development	1	1,2%
High responsibility	1	1,2%
Reliability	1	1,2%
Must not have work experience	1	1,2%
Work under pressure	1	1,2%
Creativity	1	1,2%
Knowledge of Italian	0	0,0%

Number of announcements and number of required employees by municipalities

Most workers were required in the Livno area (39.5%), followed by Sarajevo (27.84%), and Tomislavgrad. The largest number of announcements was submitted by employers from Livno (46%). Such a structure, with the exception of Sarajevo, is expected, because the City of Livno and the Municipality of Tomislavgrad are the driving forces of development in the Canton, and this is reflected in the number of their residents, registered legal entities, taxes collected and the like.

Table 10. Number of announcements and number of required employees by municipalities/areas

Town/area	Number of announcements	Percent	Number of required workers	Percent
Livno	42	46,15%	115	39,52%
Sarajevo	3	3,30%	81	27,84%
Tomislavgrad	16	17,58%	34	11,68%
Bosansko Grahovo	3	3,30%	17	5,84%
Kupres	5	8,79%	8	2,75%
Glamoč	3	7,69%	7	2,41%
Tuzla	2	2,20%	6	2,06%
Brčko	3	3,30%	5	1,72%
Mostar	1	1,10%	4	1,37%
Croatia	1	1,10%	4	1,37%
Drvar	2	2,20%	4	1,37%
Jajce	2	2,20%	4	1,37%
Not specified	1	1,10%	2	0,69%
Total	84	100,00%	291	100,00%

CONCLUSIONS AND RECOMMENDATIONS

PHOTO: [pilot_micha, flickr.com](#)

Conclusions and recommendations

In 2020, there were a total of 84 announcements seeking employment through the Employment Service, with 35 legal entities (companies, institutions, associations, etc.) looking for a minimum¹ of 291 workers. The dynamics of publishing the announcements reflected the conditions of the pandemic, so that the number of required workers was smallest after the outbreak of the pandemic.

About 61% of advertised jobs belong to the public sector, and the fact that 62.9% of the requested workers referred to the public sector shows a significant participation of the public sector in the structure of announced vacancies. This structure is extremely unfavorable and requires more significant work on positioning the Employment Service on the labour market.

After analyzing the entire work process of the Employment Service, it is noticeable that the space for improvement lies in strengthening the mediation function, i.e. its connection with the counseling function, and connecting the management process and reporting the need for workers with active employment measures, especially financial incentives. It is especially important to create procedures for providing services related to the reporting of employment needs, especially because employers are required to report them by law. It is necessary to avoid announcements being submitted only formally; they should be used to make the labour market more dynamic, create more transparent employment procedures and more efficient linking of supply and demand for labour.

The recommendations below are exclusively related to the management of databases and their improvement, and based on the data that the researchers received from the employees of the Service:

- Different positions and occupations should be entered in separate rows, so that they can be analysed. Avoid entering multiple occupations in a single cell, such as “construction worker, digger operator, grader operator, roller operator”, because it is impossible to separate the number of “required workers” (special variable) by occupation. For each occupation, it is necessary to enter the exact number of required workers.
- Standardize entries with the help of drop-down menus to avoid giving similar names. It would be desirable to make standard lists for variables / columns: employers (company names), city and areas, jobs and occupations, form of employment and required skills. For example, although all forms of employment can be grouped into two categories (fixed-term employment and permanent employment), there are 29 unique entries in the database that present this information in different ways. Additional information on the duration of a fixed-term employment should be entered in separate columns / variables.
- Classify companies into public and private immediately upon entry, as well as by size (small, medium and large) and activities (KD 2010) so that useful analyses can be made based on these important parameters.

¹ One announcement did not specify the exact number of workers, but only state „several workers“. Since the description mentioned three jobs for which workers were required, it is presumed that it was an announcement for three workers.

- When defining the level of education (skilled, non-skilled, university degree), different combinations were used, e.g. secondary school / university or skilled / secondary school. Assuming that this combination implies that the required position can be filled by workers with different degrees, it would be desirable to define two variables: the lowest degree and the highest degree, in order to facilitate the analysis. In addition, for a large number of occupations, the level of education is not entered, so it would be desirable to enter such information or automatically link it to the required occupation.
- Due to the grouping of a large number of occupations into one variable, it was not possible to analyze a significant number of occupations, as it would be necessary to introduce a number of assumptions. It is recommended that different occupations be kept as separate entries in tables / databases, so that the analysis can be automated.
- Make special variables for the required skills that would represent a standard set of skills. For example: "Computer skills", "English language skills" and "Communicativeness". In case the employer requires certain knowledge and skills, enter "Yes" or "No" in these variables.

