

Faculty of Electrical Engineering, Technická 2, Prague 6

Employment of graduates of the Faculty of Electrical Engineering, CTU in practice

Graduates from 2018 to 2022

December 2023

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Introduction

This report summarises the results of a sociological survey that mapped the employment of (recent) graduates of the Faculty of Electrical Engineering at the Czech Technical University in Prague. The aim of the research was also to determine the graduates' satisfaction with their studies at the FEL and to evaluate their studies in terms of their subsequent careers. This research focused on graduates from 2018 to 2022.

A total of 348 graduates participated in the survey.

This is the fourth study of this type. The first was conducted in 2012 and targeted graduates from 2009 to 2011, the second study took place in March 2016 and concerned graduates from 2012 to 2014. The third was completed in 2019 and surveyed the conditions of graduates from 2015 to 2018.

All four studies were conducted by the Faculty of Electrical Engineering of the Czech Technical University in Prague with the aim of obtaining, on the one hand, more detailed data on the employment of (recent) graduates and, on the other hand, feedback from graduates on their studies at the FEL. In addition to providing information on the career paths of graduates, the results of the study should also contribute to improving the quality of teaching at FEL. At the level of the entire CTU, graduate surveys were conducted in 2003, 2005 and 2010.

1. Main findings

- It appears that work experience gained during studies can be of considerable importance for graduates' employability immediately after graduation. The results of the survey show that working while studying is a relatively common phenomenon. While studying at FEL, 84% of the graduates surveyed worked, with 49% finding work experience in their field. According to their own statements, the vast majority managed to combine work and study obligations (86%). It is therefore not surprising that the overwhelming majority would choose to work again during their studies, either to the same extent (70%) or even to a greater extent (8%).
- Recent FEL graduates are very successful in entering the job market. Immediately after graduating from FEL, 51% of graduates continued the gainful activities they had been engaged in during their studies. Another 38% of respondents found work within two months of graduation. Only 2% of graduates spent more than four months looking for work. The internet was the most common source of help for recent graduates in finding their first job, especially for those who had been unemployed for a short time. In addition to the internet, recent graduates who found employment almost immediately also used their family or acquaintances, or approached selected employers themselves. A total of 15% of graduates found work through the school – advertisements on the website and notice boards, job fairs at CTU, or through the mediation of a teacher.
- At the time of the survey, none of the respondents were unemployed. Given the current socio-economic situation, FEL graduates have no problem finding employment or starting a business. The results show that the vast majority of FEL graduates from 2018 to 2022 are either employed (77%) or self-employed (21%). Compared to the previous survey, the number of graduates running their own businesses has increased by 11%.
- FEL graduates who are employees clearly seek employment in the private sector (95%). Currently, 53% of them work for Czech-owned companies, 42% are employed by foreign/multinational companies, and the remaining 5% work in the public sector. Fifteen per cent of employed graduates hold management positions, while the rest are regular employees.

- Graduates are satisfied with their current employment (95%). Respondents also have a predominantly positive view of their employment prospects, with 96% sharing this opinion (). Similarly, 81% of respondents said that their expectations of employment during their studies correspond to reality.
- The average starting salary in their first job was CZK 51,022, while in their current job, respondents earn an average of CZK 79,451, which means that FEL graduates experience a rapid increase in average earnings after starting work. The gross monthly income of FEL graduates, both starting and current, has increased significantly compared to the previous survey from 2019. The starting salary has increased by an average of 29%, and the salary in current employment by as much as 38%.
- The vast majority of graduates (87%, of which 37% are very satisfied) are satisfied with what FEL has provided them for their employment. The knowledge they acquired at FEL is used in practice by 74% of graduates to a greater or lesser extent. 33% of respondents would not be able to do without this knowledge in practice. 41% use it, but do not consider it to be the most important for their profession.
- In terms of practical application, graduates consider the ability to orient themselves and acquire new knowledge and the ability to independently solve projects to be the most important. It is positive to note that graduates acquired both of these skills better than all other competencies during their studies at FEL. Respondents declare a similar level of excellence in terms of specialist theoretical knowledge, but consider its practical application to be less important. On the contrary, the survey results showed a significantly greater discrepancy between importance and proficiency in the areas of specialist practical experience, communication skills, and organisational abilities and skills. Graduates believe that they did not acquire these important skills sufficiently at FEL. The faculty's contribution to foreign language skills was also rated low. Respondents gave very similar answers in previous surveys. There is a relatively high discrepancy between academic skills and practical importance in the areas of teamwork and the ability to argue and think critically.

2. Methodology

2.1 Research objectives and data collection method

The main objective of the survey was to map the employment of FEL graduates in the labour market, focusing on the course of their careers, the match between their field of study and their current employment, the ease/difficulty of finding employment, and job satisfaction. The survey also assessed the knowledge and skills acquired and the quality of education that graduates received at FEL, primarily from the perspective of their work experience to date.

The questionnaire survey targeted FEL CTU graduates who completed their studies in 2018, 2019, 2020, 2021 and 2022, whether in a bachelor's, master's or doctoral programme. A total of 2,975 graduates were contacted. A total of 348 completed questionnaires were received, i.e. a 12% response rate, which can be considered a solid result for this type of survey. When evaluating the response rate, it is always necessary to take into account that it is influenced by various factors: the actual availability of respondents, their time constraints, their relationship to FEL, the date of data collection, the length of the questionnaire, etc. These factors also influence the representativeness of the sample. The results of this research should also be approached with an awareness of these limitations, which are inherent in all sociological research.

The data collection itself was carried out on a one-off basis using an online survey. Graduates could complete the survey from 9 January 2023 to 6 February 2023.

As in previous studies, the way in which the questionnaires were completed indicates that most respondents approached the survey very responsibly. Respondents wrote down their own opinions in detail, refraining from using inappropriate expressions and "jokes." The vast majority of questionnaires were completed despite the time required, and respondents took an active interest in the research results, commenting on the questionnaire, etc.

2.2 Basic characteristics of the graduate sample

The sample of graduates obtained can be characterised by two basic categories. On the one hand, the entire sample of graduates is divided according to the degrees obtained, and on the other hand, the sample of graduates is divided according to individual study programmes (see Tables 1 and 2).

Table 1 Distribution of the sample

By year of graduation	Number	%
2018	65	19
2019	77	22
2020	89	25
2021	86	25
2022	31	9
Total		100
By degree obtained	Number	%
Has attained a bachelor's degree ¹	61	18
Achieved a master's degree	287	82
Achieved a Ph.D. degree	0	0
Total	348	100

The proportion of Bachelor's degree graduates in the sample studied is low compared to Master's degree graduates. There are no doctoral programme graduates among the respondents. The results for individual Master's degree programmes are similar. Due to the lower number of respondents in some categories (whether study programmes or degrees obtained), the comparisons of these categories mentioned in the text are mainly indicative. Unless otherwise stated, these differences are not statistically significant. If the results differ significantly according to the degree obtained, they are presented separately in the report.

Study programmes are further sorted in tables and graphs according to the following order and are identified by the following abbreviations:

1. Electrical Engineering, Energy and Management (EEM)
2. Communications, Multimedia and Electronics/now Electronics and Communications (KME/EK)
3. Cybernetics and Robotics (KYR)
4. Open Informatics (OI)
5. Biomedical Engineering and Informatics/new Medical Electronics and Bioinformatics (BII/BIO)
6. Intelligent Buildings (IB)
7. Electrical Engineering, Electronics and Communication Technology (EEK)
8. Aeronautics and Astronautics (LK)
9. Open Electronic Systems (OES)

¹ Only graduates of bachelor's degree programmes who do not continue their studies at FEL are included in the sample.

10. Software technologies and management/ newly Software engineering and technologies (STM/SIT)

Table 2 Distribution of respondents by study programme

Title	Programme	Number
I have obtained a bachelor's degree	STM/SIT	9
	OI	13
	EEM	7
	KME/EK	7
	KYR	10
	EEK	2
	SIT	13
I have obtained a master's degree	OI	113
	EEM	54
	KYR	53
	KME/EK	44
	BII/BIO	12
	IB	8
	EK	1
	LK	1
	OES	1

Where possible in terms of relevant data, the report also compares the results of both previous surveys in a time series.

3. Research results

3.1 Working during studies

Previous research has shown that one of the significant factors influencing the immediate employability of graduates on the labour market is starting a career while still studying at university. The results of the latest research confirm this fact. This chapter deals with the early stages of the careers of FEL graduates.

Work during university studies does not necessarily have to take the form of permanent employment; it can start as a long-term part-time job. However, such work experience is still quite important in terms of the graduates' later employment. More than half of the FEL graduates surveyed (51%) continued in the job they started during their studies immediately after graduation (see Chapter 3.2).

More than four-fifths of graduates had work/employment experience lasting longer than three months during their studies. Most often, this was work in a field that corresponded to their field of study (49%). Not surprisingly, work in the field was more prevalent among master's programme students (50%, down from 56% in 2019). Twenty percent of graduates, including 21% of master's graduates, combined work, whether in their field or outside their field, with their studies at FEL. If we combine both categories, a total of 69% of graduates found work in their field, whether in combination with another field or not, which is 3% more than in the previous survey. For master's graduates, this was even 5% more than in the previous survey, which can be taken as a positive fact. A total of 13% of graduates worked completely outside their field, most often bachelor's programme graduates (23% of whom worked outside their field while studying (see Graph 1).

Graph 1: Did you work for 3 months or more during your studies at FEL, by degree obtained?

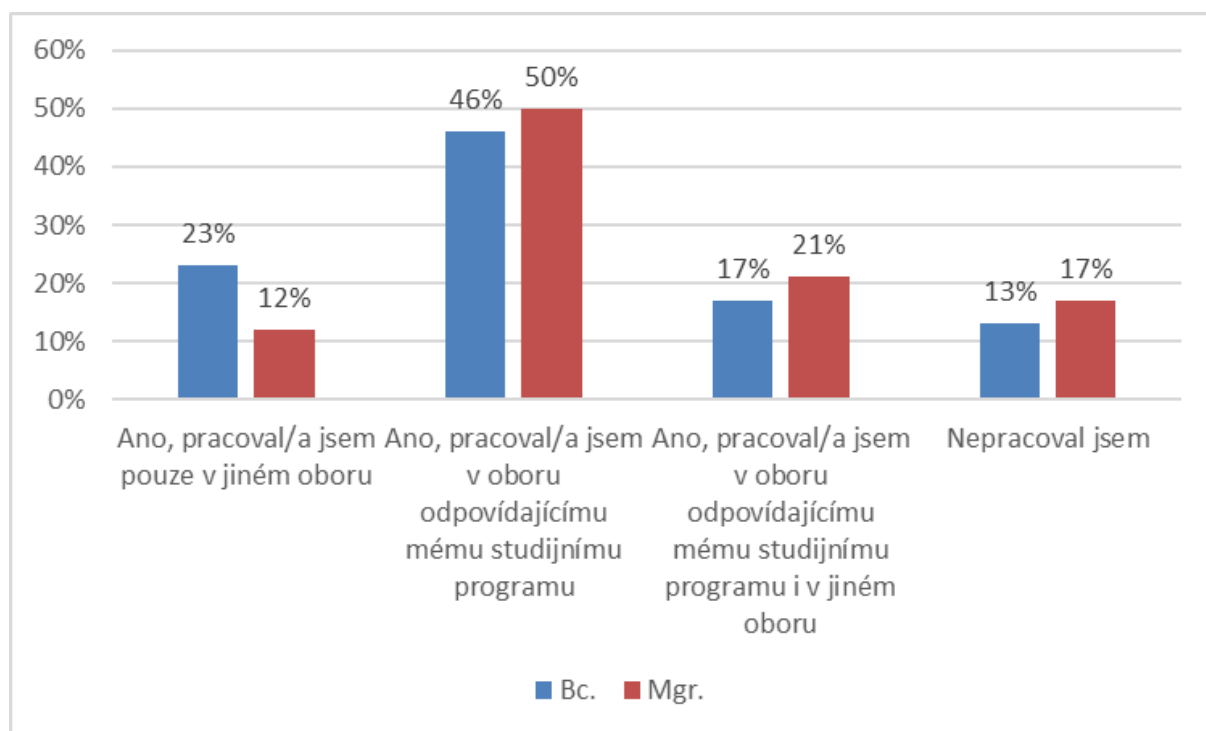


Table 3 Work during studies by degree obtained

	Bc.	Mgr.	Total
Yes, I only worked in a different field	12	33	45
Yes, I worked in a field corresponding to my study programme	23	137	160
Yes, I worked in a field corresponding to my study programme and in another field	9	58	67
I did not work	7	47	54
Total	51	275	326

The highest proportion of students who gained work experience in their field during their master's studies (excluding programmes with a statistically insignificant number of respondents – OES, LK) was at OI and KYR (74%), followed by EK (71%), BIO (67%) and EEM (63%). Work outside the field was most frequently reported by graduates of IB (50%, may be distorted by the lower number of respondents) and EEM (21%).

Table 4 Work during studies by master's programme

	BIO	EK	EEM	IB	KYR	LK	OI	OES
Work outside the field	16.7	15.9	21.2	50.0	7.8	0.0	4.8	0.0
Work in the field	50.0	40.9	34.6	25.0	45.1	100.0	64.8	100.0
Work in the field and outside the field	16.7	31.8	28.8	25.0	29.4	0.0	9.5	0.0
Not working	16.7	11.4	15.4	0.0	17.6	0.0	21.0	0.0
Total N	12	40	52	8	51	1	105	1

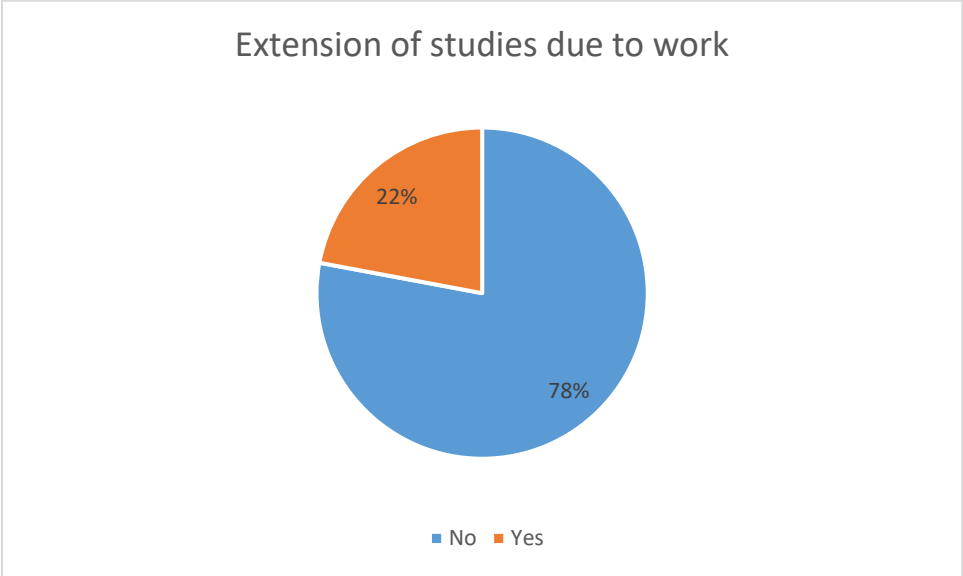
The most frequently mentioned type of activity that respondents used to earn extra money while studying was SW/HW development (30%), programming (14%) or research work (10%). For more details, see Table 4.

Table 5 Type of work during studies (according to students)

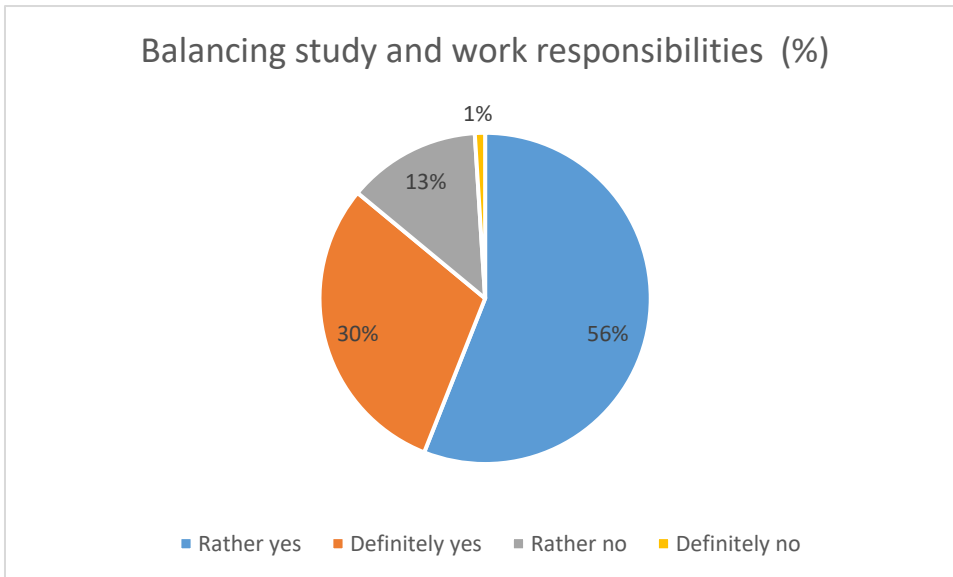
Type of work during studies	Number	Percentage
Software/hardware development	69	30
Programmer	32	14
Research	23	10
Technician	17	7
Energy	11	5
Tester	10	4
Electronics	10	4
Designer	9	4
Analyst	9	4
Other	8	3
Network administrator/manager	5	2
Design, graphics	5	2
Cybernetics	5	2
Business and finance	4	2
Telecommunications	4	2
Teacher	4	2
Biomedicine	3	1
Self-employment	3	1
Consultant	1	0
Manager	1	0
Total	233	100

On the one hand, there is early work experience and its positive contribution to an easy start to a career; on the other hand, there is the extension of the duration of study precisely because of the need to combine work with study obligations. How do graduates who have had work experience during their studies evaluate it? It appears that the workload during studies at FEL led to an extension of the overall length of studies for more than a fifth of graduates (22% compared to 29% in the previous survey). However, the vast majority of graduates with work commitments managed to combine work and study (86% of respondents answered "definitely yes" or "rather yes" – in the previous survey, it was 84%). And the same proportion of respondents would, after weighing up all the pros and cons, work either the same amount (70%) or even more (8%) while studying.

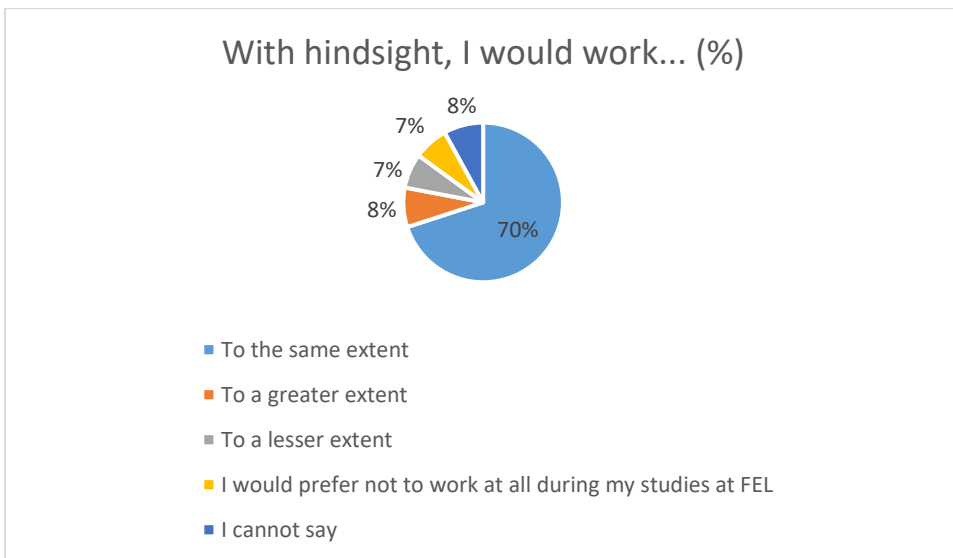
Graph 2: **Did your work/employment extend the total length of your studies at FEL?** (n=293)



Graph 3: **Looking back, would you say that you were able to balance your study and work responsibilities during your studies at FEL?** (n=293)



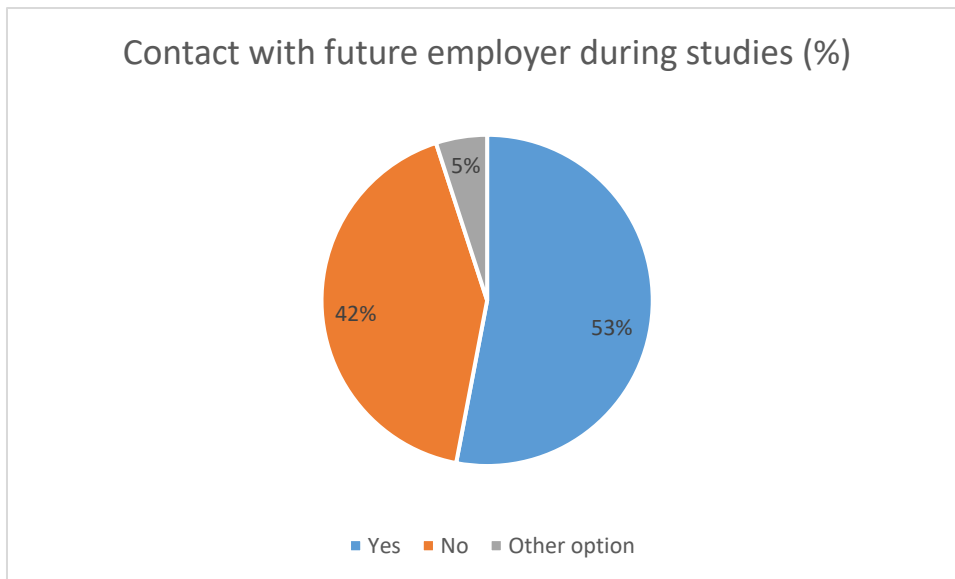
Graph 4: Considering all the positives and negatives that your work/employment brought you during your studies, both in terms of your studies at FEL and your later career, would you have worked during your studies at FEL? (n=293)



3.2 First job

It is clear from the previous findings that graduates perceive work experience during their studies positively and would definitely not want to miss out on it. This conclusion is also supported by another finding, namely that more than half of the graduates surveyed (53%) were already in contact with their future employer during their studies.

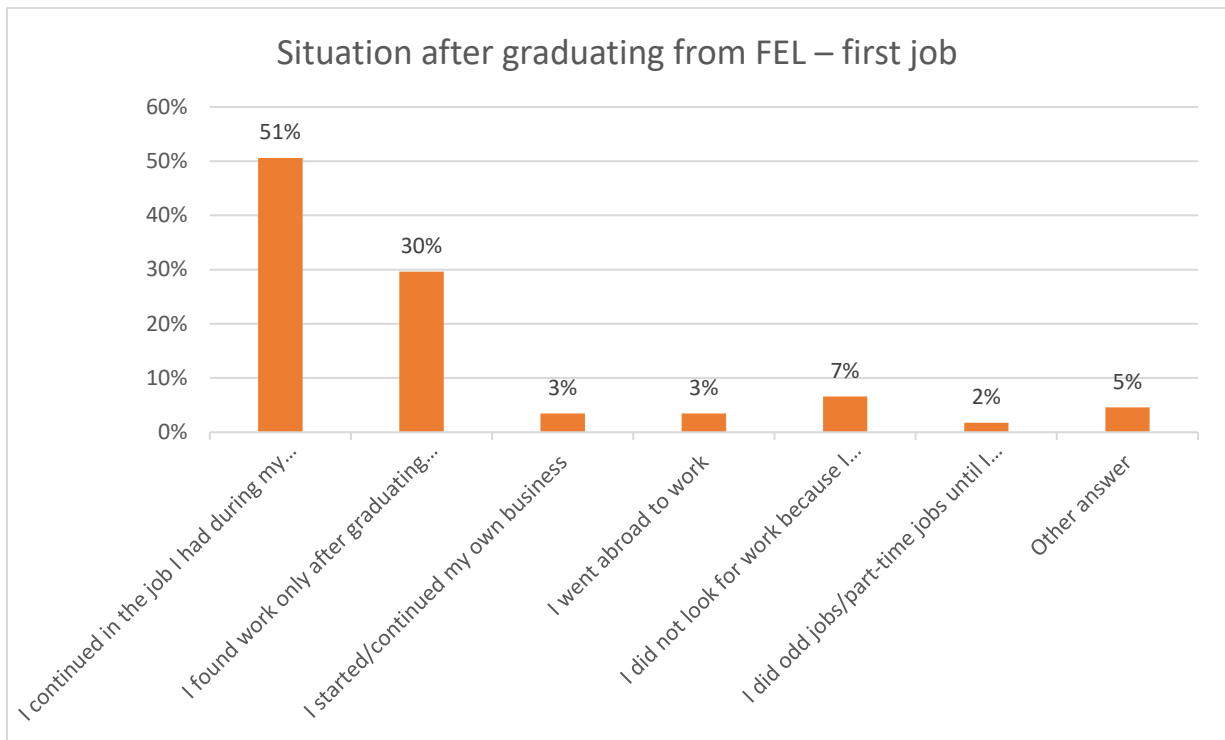
Graph 5: Were you in contact with your future employer during your studies at FEL?



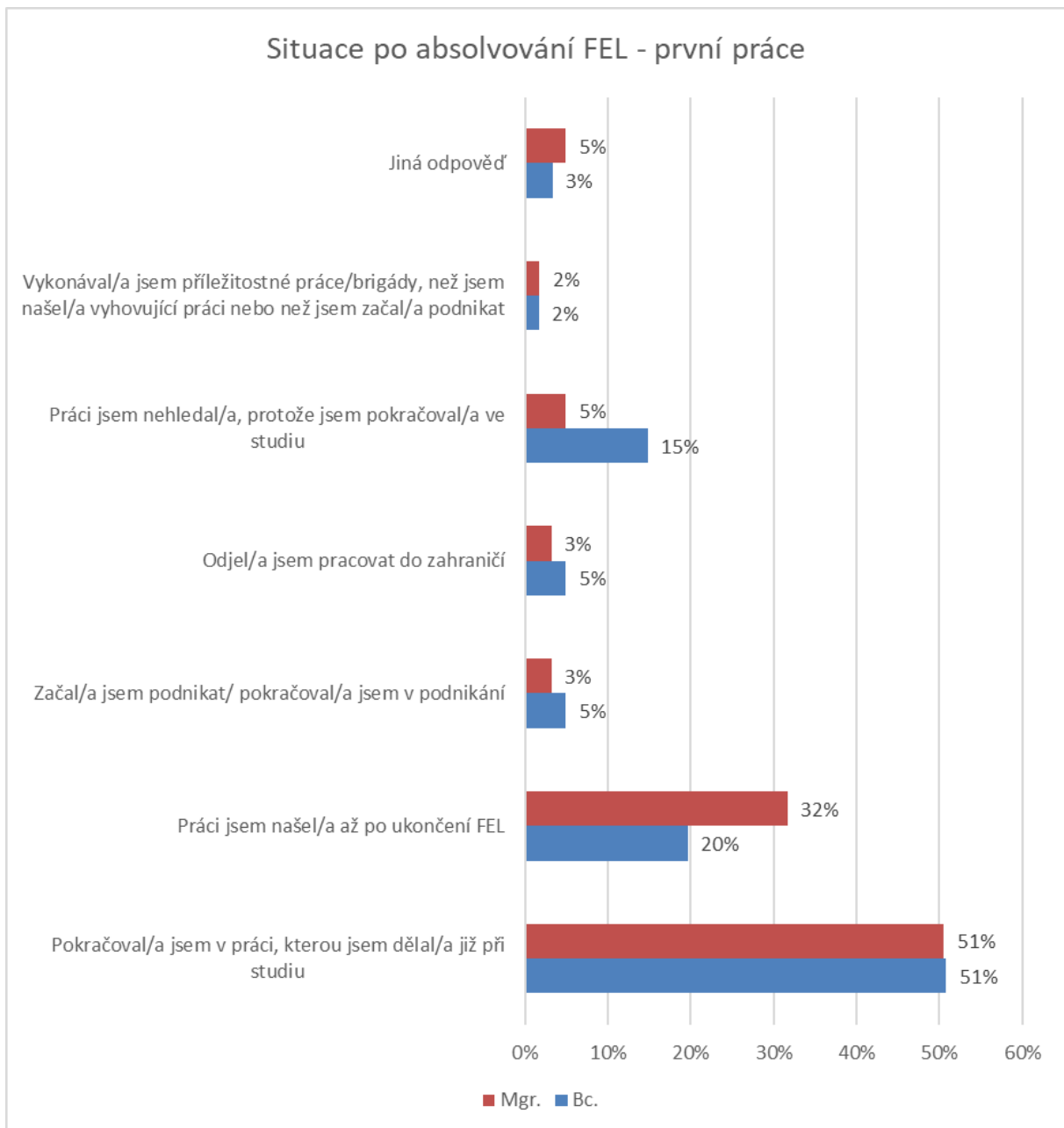
The vast majority of graduates (81%) had no problems finding their first job after successfully completing their studies at FEL. More than half of the graduates (51%) continued in the job they had started during their studies immediately after graduation. In the previous survey, 57% responded in this way. However, the survey now shows that 3% of graduates started their careers in business or continued their business activities from their studies. At the same time, 30% of respondents found work only after graduation, compared to 32% in the previous survey.

Only a minimum number of graduates did occasional part-time jobs before finding suitable employment (2%) or went abroad to gain experience (3%). There has been no change in this criterion since the last survey, as is the case with the question on unemployment or unsuccessful job searches. Only 1% of respondents said they had been unsuccessful in finding a job. However, all recent graduates eventually found a job sooner or later, and no one was unemployed at the time of the survey.

Graph 6: **What was your situation immediately after graduating from FEL when looking for your first job?** (n=326)



Graph 7: **What was your situation immediately after graduating from FEL when looking for your first job**, according to the degree obtained?



The situation of recent graduates differs in some respects depending on the level of education attained. Graduates of master's programmes were more likely to find work after completing their studies at FEL (32% compared to 20% of bachelor's degree graduates). It is not surprising that there is a higher proportion of bachelor's programme graduates who continue their studies; 15% responded this way in the survey, which is 10 percentage points more than graduates with a master's degree (see Graph 7).

The situation of recent graduates of FEL master's programmes has not changed significantly, as shown in the graph comparing the results of both graduate surveys (see Graph 7).

Chart 8: How long did it take you to find your first job after graduating from FEL? Cumulative data for both employed and unemployed recent graduates

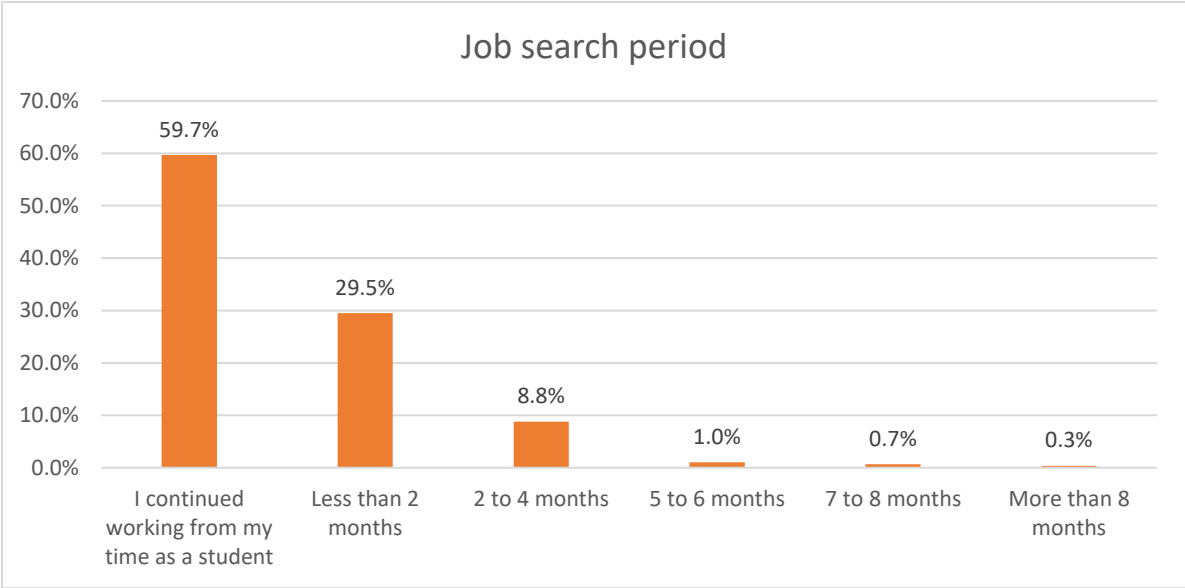
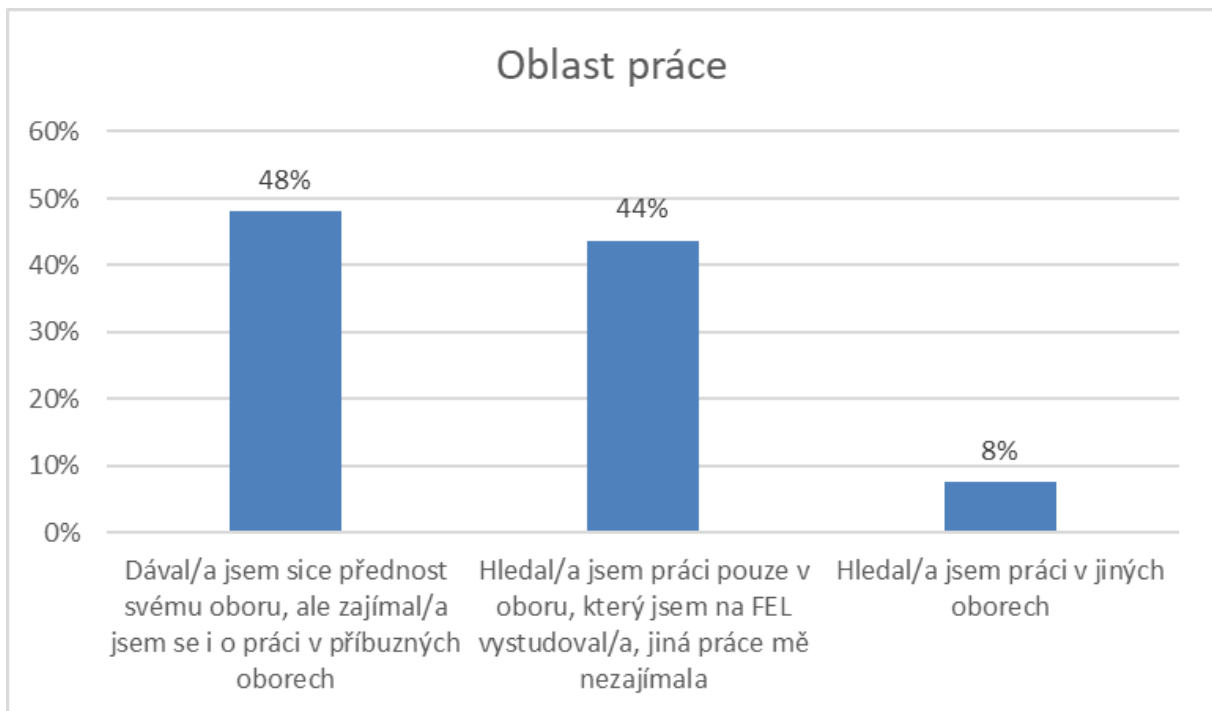


Chart 8 shows the time it took recent graduates of bachelor's and master's programmes to find their first job. 89% of respondents already had a job or found one within two months of graduation. Only 2% of respondents searched for a job for more than 4 months, half of them for more than 6 months. A comparison with previous surveys shows that the trend of finding a first job immediately after graduation remains unchanged among FEL graduates and that the enormous demand for FEL engineers and bachelors continues.

3. 3 Employed recent graduates

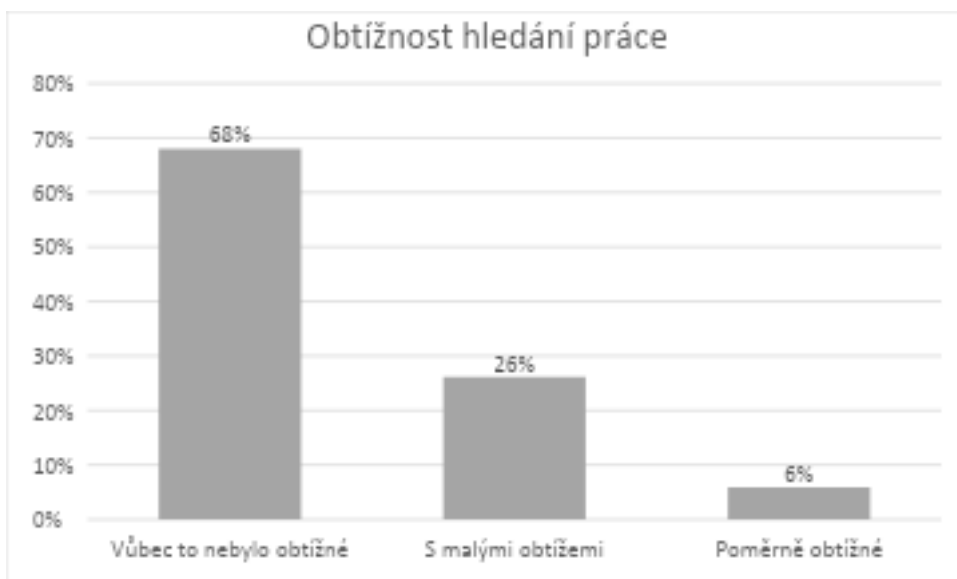
This section describes the situation of recent graduates who sought employment after completing their studies at FEL.

Graph 9: How long did it take you to find your first job after graduating from FEL?



From the perspective of graduates who found work soon after completing their studies at FEL, it is worth noting that 48% of graduates preferred their field of study, but were also interested in work in related fields. In contrast, the group of graduates who sought work exclusively in the field they studied is smaller (44%). Surprisingly, 8% sought work in a field other than the one they studied; however, this percentage was the same in the previous survey.

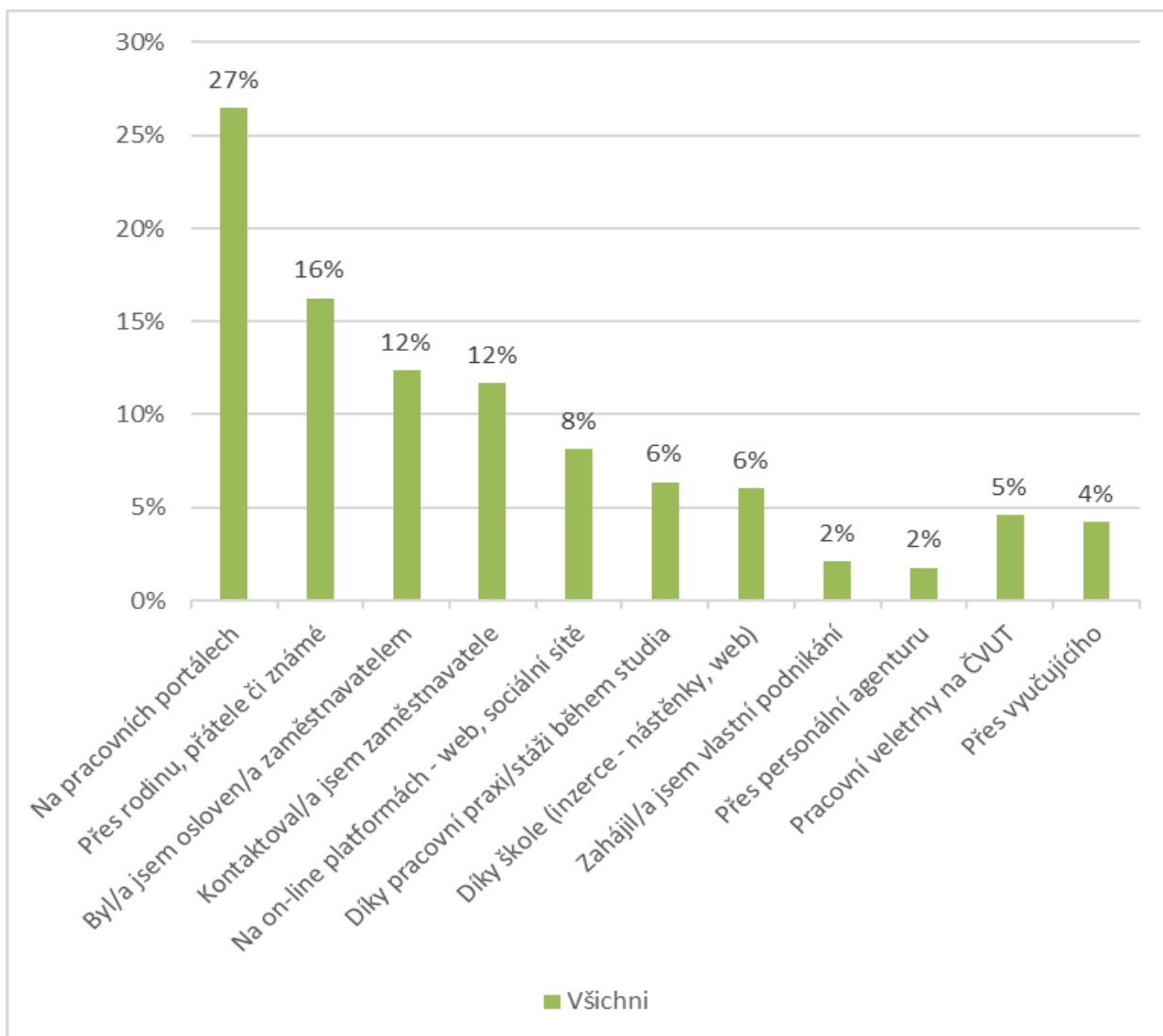
Graph 10: **Was it difficult for you to find a job after graduating from FEL?**



Almost two-thirds of respondents (68%) say that finding a job was easy for them, while 26% say it was somewhat difficult. Only 6% say that the job search process was difficult, for some of them also because it was affected by the COVID-19 pandemic.

Most often, they were helped in finding a job by job portals and online platforms such as social networks or websites (27% and 8%, respectively), while 16% were helped by family or friends. Compared to the results of the 2015 survey, the number of respondents approached by an employer decreased from 17% to 12%. Twelve per cent approached employers themselves, and 6% found work thanks to an internship or work experience during their studies (see Chart 11). A significant number of graduates found work through their school – via advertisements on the web and notice boards, job fairs at CTU, or through the mediation of a teacher – a total of 15% responded in this way.

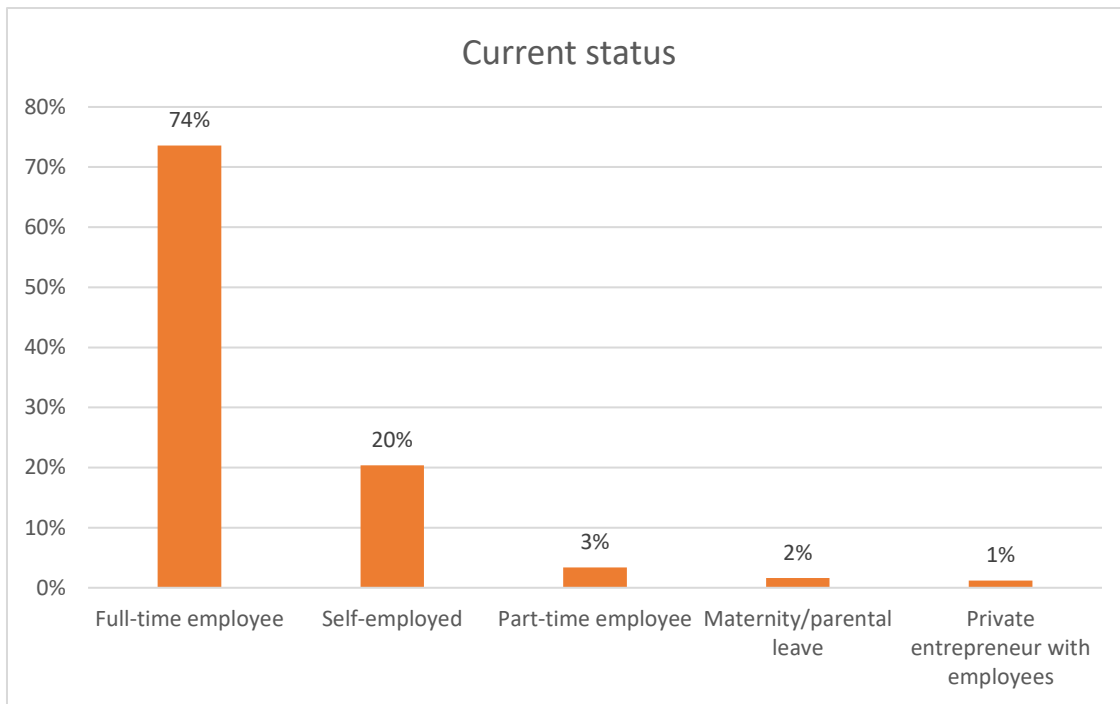
Chart 11: **Main method of obtaining first job**



3.4 Current socio-economic status

The vast majority of FEL graduates surveyed are currently self-employed (21%) or employed (77%), of which 3% are part-time. The remaining 2% of respondents are on maternity/parental leave (2%). Not a single graduate in the entire sample is unemployed. Full-time employees clearly predominate in the sample (74%), compared to 79% in the previous survey. Compared to the 2018 results, the number of self-employed persons has increased significantly – from 9% to 20%.

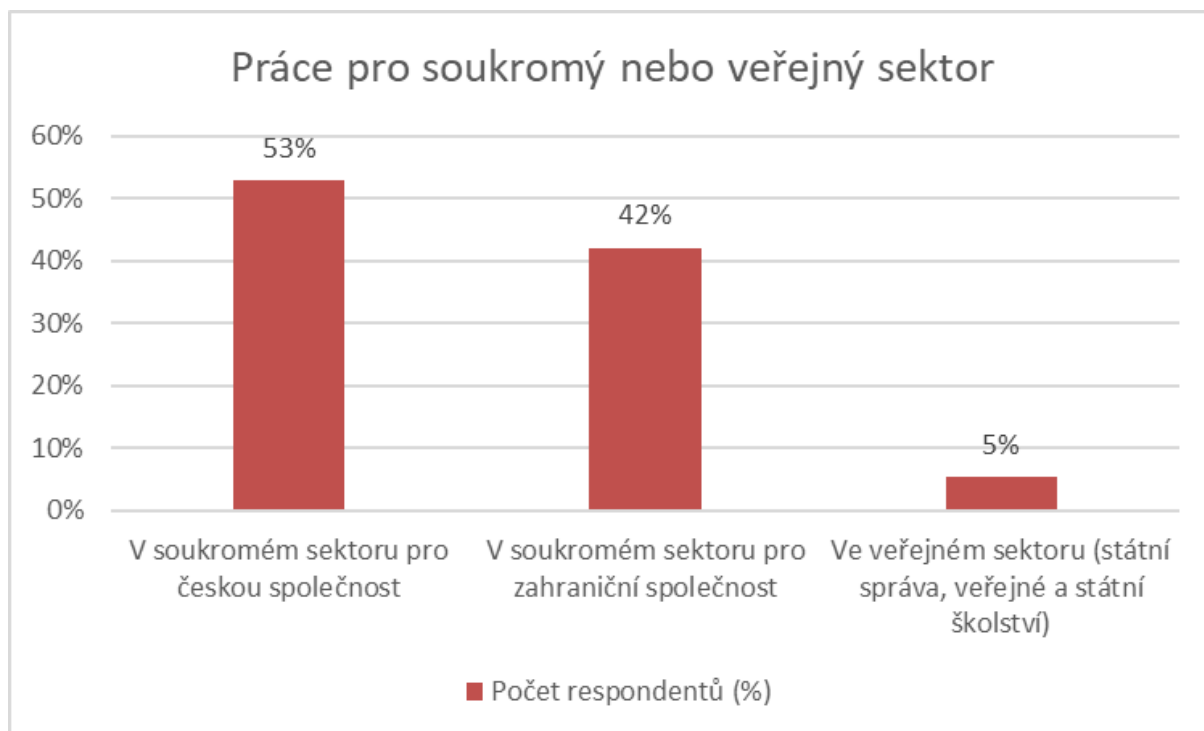
Chart 12: Current employment status of respondents by main activity (n=314)



3.5 Career path and characteristics of current employment

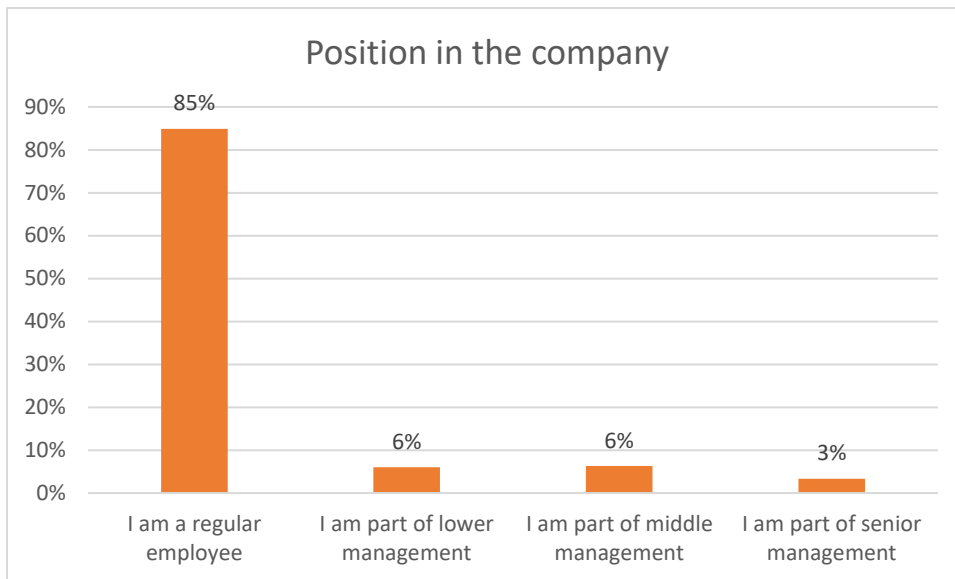
Similar to the previous survey, it was clearly shown that FEL graduates are employed almost exclusively in private companies (95%). Most graduates work for Czech-owned companies (53%), while 42% work for foreign companies. In this criterion, the results differ from the previous survey, where the ratio was 48% for foreign companies and 38% for Czech companies. Five per cent of graduates are employed in the public sector, which includes state administration, public institutions and education.

Graph 13: In which sector do graduates currently work (n=317)



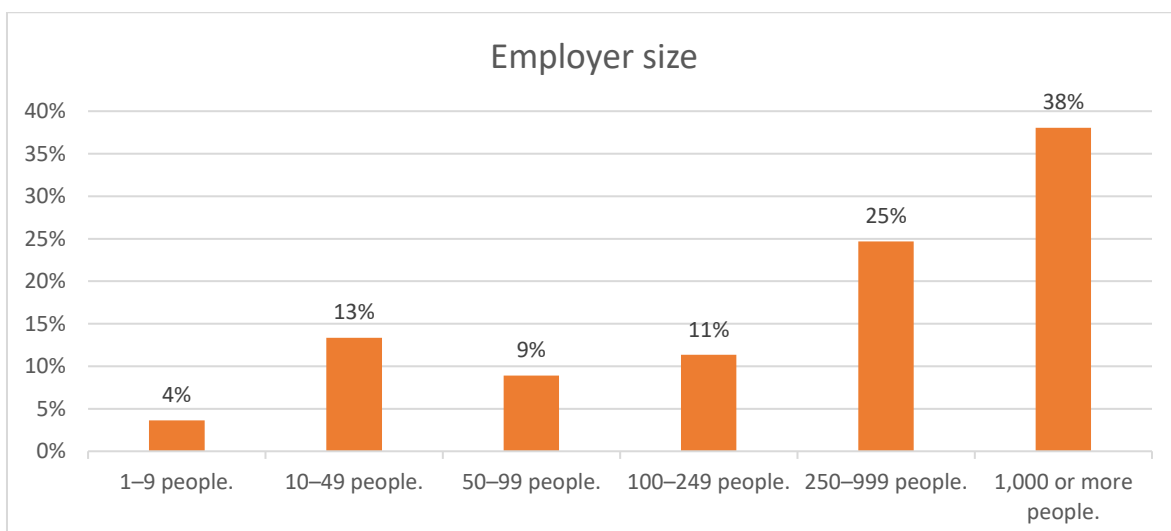
The vast majority (85%) of employed respondents are rank-and-file employees. 6% hold lower management positions, 6% hold middle management positions, and 3% are part of senior management. Overall, 15% of employed graduates hold managerial positions. A similar representation of individual employee positions was also found in the previous survey, where 19% of graduates held managerial roles. The difference is that 3% of FEL graduates now hold top management positions.

Graph 14: **Position in current employment**, (n=317)



The finding that FEL graduates are employed both in small companies with up to 100 employees and in large multinational companies with more than a thousand employees was confirmed in this survey. As in previous surveys, large employers continue to predominate. 38% of employed graduates work in large organisations with more than 1,000 people (the same figure as in 2018) and 36% work in companies with 100 to 1,000 people – this result is 3% higher than in the previous survey. The data obtained correlates with the previous fact that graduates are very often employed in multinational companies.

Graph 15: **Size of employer**, (n=317)



3.6 Earnings

This chapter focuses on graduates' earnings. This time, we looked not only at current earnings, but also at earnings in the first job. This is because the earnings of recent graduates are a figure that, among other things, reflects the quality of recent graduates' employment in practice.

In the entire survey, 85% of employed respondents reported their current income, which is a relatively high percentage, indicating to some extent a favourable attitude towards this survey. From a methodological point of view, it should be noted that "reported incomes" are usually closer to the lower end of the imaginary range and that actual incomes tend to be slightly higher.

There has been a clear increase in average earnings from the first job to the current one. The average starting salary in the first job was CZK 51,022, while in their current job, respondents earn an average of CZK 79,451. The gross monthly income of FEL graduates, both starting and current, has increased significantly compared to the previous survey from 2019. The starting salary has increased by an average of 29%, and the salary in the current job by as much as 38%.

The level of income also varies according to the degree obtained. Similar to the previous survey, graduates with a Bachelor's degree reported a higher average income than graduates with a Master's degree. This result can be attributed to the lower number of respondents in Bachelor's programmes.

The increase in income for graduates of Master's and Bachelor's programmes is shown in the table.

Table 6: Gross monthly income in current employment by level of education, comparison of surveys, until 2014 only Master's degree graduates

Period	Bachelor's	Master's
2022	CZK 82,650	78,811 CZK
2018	66,037 CZK	56,486 CZK
2014		CZK 41,879
2011		31,989 CZK

As regards gross monthly income by programme completed, for some programmes we are basing our findings on the responses of a small number of respondents. For statistically significant data, the highest net income for Master's programmes was

reported by respondents from the OI study programme (as in the previous survey). For Bachelor's programmes, the highest incomes were reported by graduates of the STM/SIT and OI IT programmes.

Table 7: **Gross monthly income in current employment by Bc. and Mgr. programmes**

	Programme	Number of respondents	Average current salary
Bachelor's programmes	EEM	6	66,750 CZK
	EEK	3	99,333 CZK
	KME/EK	4	47,500 CZK
	KYR	5	71,200 CZK
	OI	10	81,771 CZK
	SIT	1	65,000 CZK
	STM/SIT	17	98,512 CZK
Master's programmes	BII/BIO	11	57,410 CZK
	EK	0	
	EEM	45	67,653 CZK
	IB	7	78,000 CZK
	KME/EK	37	67,040 CZK
	KYR	40	75,565 CZK
	LK	1	82,000 CZK
	OI	88	93,994 CZK
	OES	1	48,000 CZK

**Small number of responses*

The average income is influenced by various factors, in particular the sector and the level of education attained. In terms of current employment, the highest average incomes are reported by employees working in multinational companies. Income is also influenced by job position.

Table 8: **Gross monthly income of graduates by sector of employment**

Sector	Average current salary
In the private sector for Czechia	CZK 65,377
In the private sector for a foreign company	CZK 87,817
In the public sector (state administration, public and state education)	CZK

Table 9: **Gross monthly income of graduates by sector of employment and level of education attained**

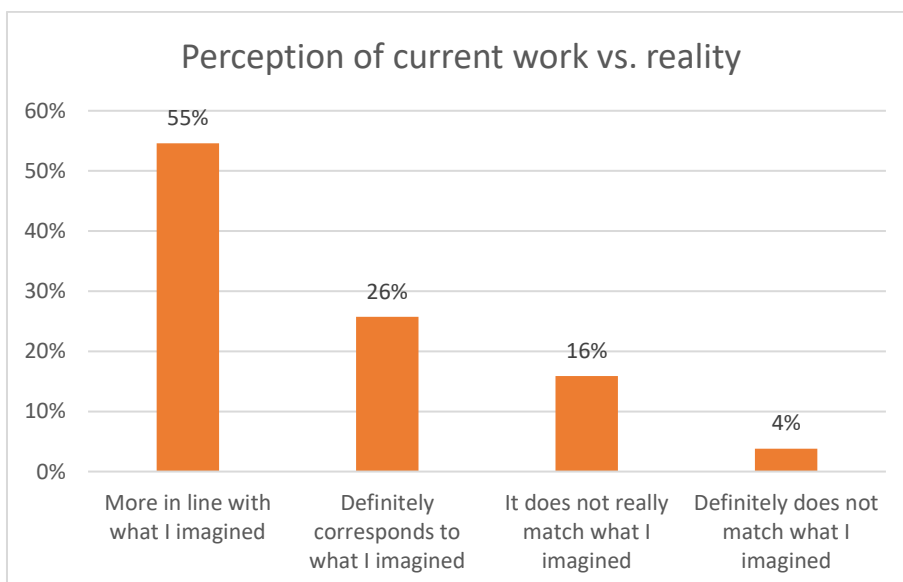
Sector	Qualification	Current salary
In the private sector for a foreign company	Bc.	109,539 CZK
	Ing.	84,001
In the private sector for a Czech company	Bc.	63,500 CZK
	Ing.	65,651
In the public sector (state administration, public and state education)	Bachelor	36,303 CZK
	Ing.	50,051

3.7 Job evaluation

The survey also examined how graduates evaluate their current employment: whether their current job corresponds to their expectations as students, whether they are satisfied with their job, and whether they consider it to be promising.

According to the vast majority of employed graduates (81%), their current job position corresponds to what they imagined during their studies at FEL.

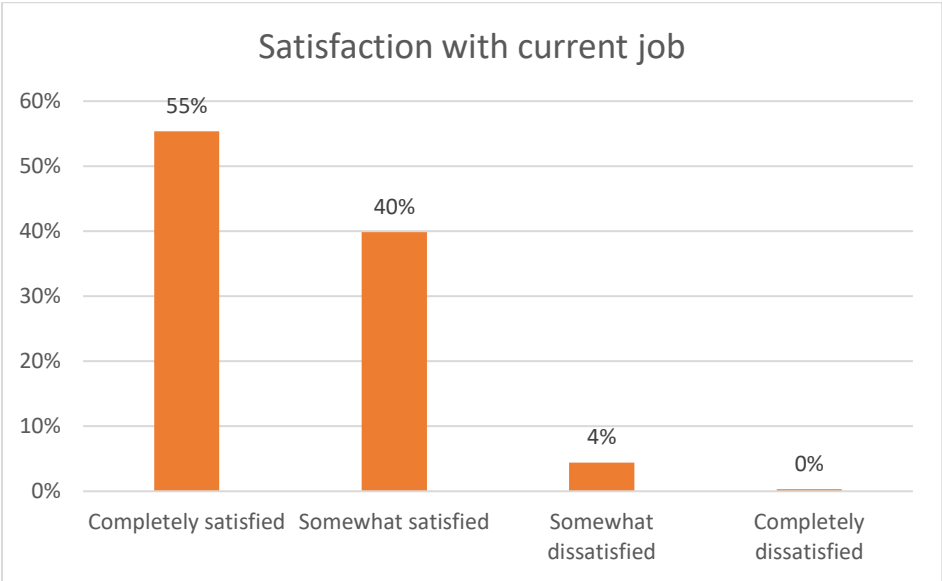
Graph 16: **Expectations of employment**



Other factors, such as salary, also influence the discrepancy between reality and expectations about future employment. The higher their salary, the more intensely graduates declare that reality matches their own expectations about employment. Salary also has a similar effect on graduates' job satisfaction and their assessment of the prospects of their job.

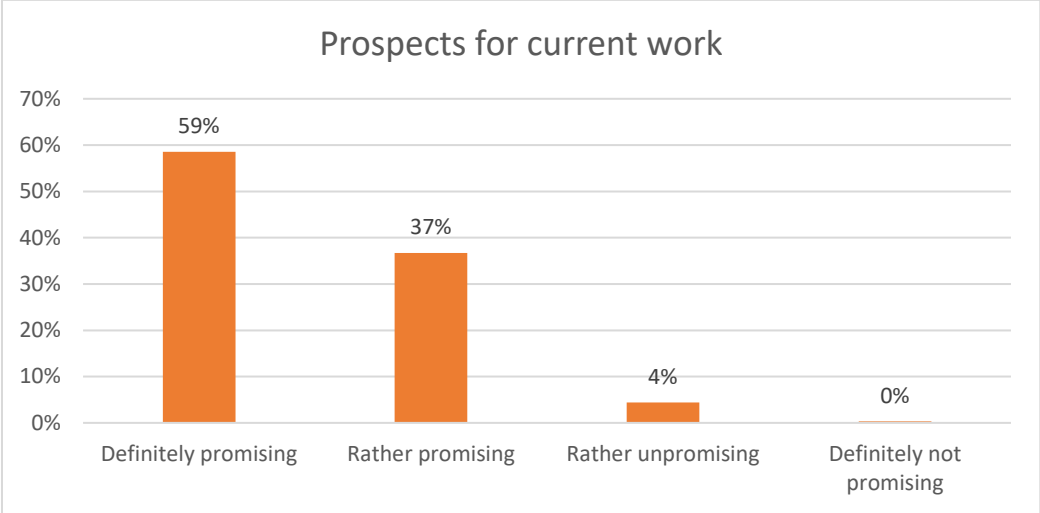
As in the previous survey, satisfaction with current employment prevails among graduates (95%). Fifty-five per cent are completely satisfied with their work, while 40% of respondents are somewhat satisfied.

Chart 17: Job satisfaction



The high level of satisfaction among graduates with their current gainful employment corresponds to their positive outlook for the future. Most of them consider their work to be promising (96%), with 59% of them describing it as definitely promising. Comparing the results of graduate surveys, we can see that the current survey shows a further increase in positive assessments of job prospects. In 2018, 90% of respondents rated their work as promising.

Graph 18: Assessment of job prospects



3.8 Assessment of studies at FEL

The following chapter focuses on the evaluation of teaching and its contribution to later practical application from the perspective of the current experiences of graduates. Feedback from graduates is a valuable source of information for further improving the quality of study at FEL. We asked graduates how they retrospectively assess their study programme and teaching, how the knowledge they acquired at FEL has benefited them, how willing they are to repeat their educational path, and how satisfied they are overall with FEL in terms of employment.

3.8. 1 Overall evaluation of studies

Respondents were asked to evaluate their studies at FEL CTU in terms of their contribution to their subsequent career. 87% of respondents expressed satisfaction, 10% were neutral in this regard, and 3% were rather dissatisfied. In terms of the level of education achieved, engineers (88%) declared greater satisfaction than bachelors (82%).

Graph 19: Satisfaction rating with the overall benefit of studies

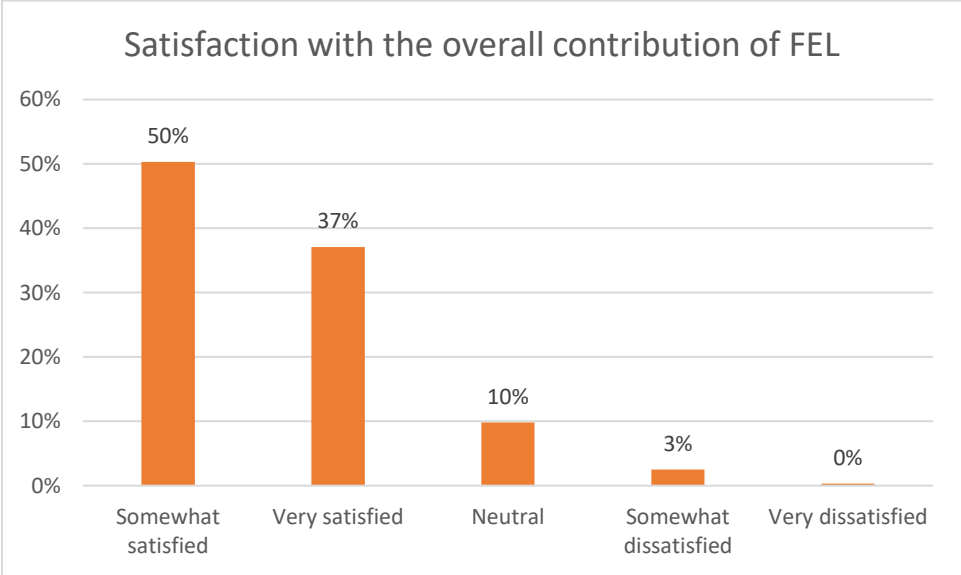


Table 9: Satisfaction rating with the overall benefit of studies according to degree obtained

How satisfied are you with the overall benefit of FEL?	Bachelor	Ing.
Very satisfied	25	39
Somewhat satisfied	57	49
It's neutral	12	10
Rather dissatisfied	6	2
Very dissatisfied	0	0

3.8.2 Knowledge and skills in practice and teaching

In addition to showing what a career path looks like after successfully completing studies at FEL, the research results also reveal graduates' opinions about their studies. It is particularly beneficial that, on the one hand, they can assess which knowledge and skills are important for practical application based on their experience. On the other hand, graduates can also assess whether they acquired this knowledge and these skills during their studies at FEL.

First, graduates rated the importance of selected knowledge and skills for their employment on the labour market on a scale of 1 to 5, where 1 = very important and 5 = completely unimportant. They then recorded the extent to which the faculty had equipped them with this knowledge and skills, again on a scale of 1 to 5, where 1 = excellent and 5 = insufficient.

Table 10 below shows the ranking of individual competences according to their importance in practical application. A positive finding is that the competences considered most important, i.e. the ability to orientate oneself and acquire new knowledge and the ability to independently solve projects, were more or less acquired by graduates during their studies at FEL.

The most important skill – the ability to orient oneself and acquire new knowledge – was rated by FEL graduates as a "lower A" (average value 1.7), which is also the best overall grade in terms of competence. The situation is similar for the second most important competence – the ability to independently solve projects. The average grade for FEL in terms of this competence was 1.7. Graduates acquired both of these most important skills better than all others during their studies at FEL. The exception is specialist theoretical knowledge, which graduates were also relatively well equipped with during their studies at FEL (1.8), but they consider its practical application to be significantly less important (2.3). These results are practically identical to the results of previous surveys.

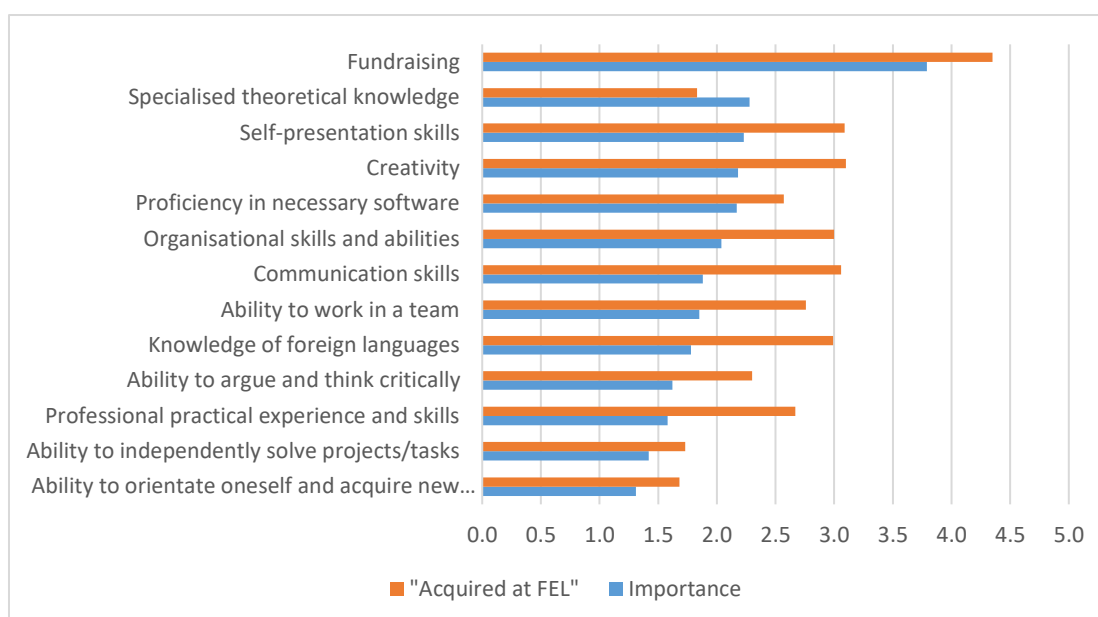
On the contrary, the most significant discrepancy between importance and preparedness was in these four areas: foreign language skills, communication skills and professional practical experience, organisational skills and abilities. Graduates believe that they did not acquire these relatively important knowledge and skills at FEL to an extent that would correspond to their later demands in practice. A relatively high discrepancy between academic skills and practical importance can be seen in the ability to work in a team and the ability to argue and think critically. Respondents attach above-average importance to both of these qualities in terms of practical use.

Graduates rated their acquired knowledge in the area of obtaining financial resources the lowest (average grade 4.4). However, this competence is rated as the least important for practical application.

Table 10: **Assessment of importance and preparedness – all graduates**

Characteristic	Importance	"Acquired at FEL"	Difference
Ability to orientate oneself and acquire new knowledge	1.3	1.7	-0.4
Ability to independently solve projects/tasks	1.4	1.7	-0.3
Professional practical experience and skills	1.6	2.7	-1.1
Ability to argue and think critically	1.6	2.3	-0.7
Knowledge of foreign languages	1.8	3.0	-1.2
Ability to work in a team	1.9	2.8	-0.9
Communication skills	1.9	3.1	-1.2
Organisational skills and abilities	2.0	3.0	-1
Mastery of necessary software	2.2	2.6	-0.4
Creativity	2.2	3.1	-0.9
Self-presentation skills	2.2	3.1	-0.9
Specialised theoretical knowledge	2.3	1.8	0.5
Acquisition of financial resources	3.8	4.4	-0.6

Graph 37: **Knowledge and skills in FEL teaching and in practice**, average values, (n=xxx)



From the perspective of individual programmes, it is interesting to observe the views of the graduates surveyed on which programmes are better/worse equipped. In the case of BIO and IB, there is a demand for better foreign language skills. In general, across programmes, there is a lower level of "soft skills" such as teamwork, communication skills, self-presentation skills, and organisational skills. Specifically, the first two characteristics can be considered the weakest link among OI graduates, who otherwise responded in line with the average. On the other hand, KYR graduates stand out positively in teamwork and organisational skills, and together with BIO, they are at the top in terms of acquiring new knowledge. EEM lags somewhat behind the others in the ability to solve tasks independently. KME/EK graduates are above average in their satisfaction with their professional theoretical knowledge and self-presentation skills.

Table 11: **Assessment of importance and equipment, by master's programme**

Importance for employment	BIO	EEM	IB	KME/EK	KYR	OI	FEL
Ability to orientate oneself and acquire new knowledge	1.3	1.4	1.5	1.3	1.3	1.2	1.3
Ability to independently solve projects/tasks	1.4	1.4	1.5	1.3	1.3	1.4	1.4
Professional practical experience and skills	2	1.9	1.4	1.5	1.7	1.4	1.6
Ability to argue and think critically	1.5	1.7	1.6	1.9	1.4	1.5	1.6
Knowledge of foreign languages	1.8	2.1	1.6	1.5	1.6	1.8	1.8
Ability to work in a team	1.7	1.9	2	1.9	1.9	1.7	1.9
Communication skills	1.6	1.9	1.5	2.1	1.9	1.9	1.9
Organisational skills and abilities	1.9	1.9	1.3	2.4	2.3	2	2.0
Mastery of necessary software	1.9	2.5	1.8	1.8	2	2.3	2.2
Creativity	2.2	2.4	2.5	2.1	2	2.1	2.2
Self-presentation skills	2.1	2.1	1.4	2.6	2.5	2.2	2.2
Specialised theoretical knowledge	2.2	2.2	1.9	1.9	2.3	2.3	2.3
Acquisition of financial resources	3.8	3.4	3.3	3.9	3.9	3.9	3.8

Facilities	Organic	EEM	IB	KME/EK	KYR	OI	FEL
Ability to orientate oneself and acquire new knowledge	1.4	1.8	2.3	1.6	1.4	1.7	1.7
Ability to independently solve projects/tasks	1.4	2	1.8	1.5	1.6	1.6	1.7
Professional practical experience and skills	2.7	2.9	2.8	2.7	2.6	2.6	2.7
Ability to argue and think critically	2.2	2.4	2.4	2.1	2.3	2.3	2.3
Knowledge of foreign languages	3.6	3.2	3	3	2.9	2.8	3.0
Ability to work in a team	2.3	2.5	2.9	2.6	2.5	3	2.8
Communication skills	2.8	2.9	3.5	2.8	3	3.2	3.1
Organisational skills and abilities	3.3	2.9	3	2.9	2.9	3.1	3.0
Mastery of necessary software	2.3	2.8	2.9	2.5	2.3	2.6	2.6
Creativity	3.3	3.4	3.5	3	2.7	3.1	3.1
Self-presentation skills	3.3	3	3.5	2.9	3.1	3.2	3.1
Specialised theoretical knowledge	1.8	2	2.3	1.9	1.7	1.6	1.8
Acquisition of financial resources	4.3	4.1	4.8	4.1	4.5	4.5	4.4
Difference	BIO	EEM	IB	KME/EK	KYR	OI	FEL
Ability to orientate oneself and acquire new knowledge	-0.1	-0.4	-0.8	-0.3	-0.1	-0.5	-0.4
Ability to independently solve projects/tasks	0	-0.6	-0.3	-0.2	-0.3	-0.2	-0.3
Professional practical experience and skills	-0.7	-1	-1.4	-1.2	-0.9	-1.2	-1.1
Ability to argue and think critically	-0.7	-0.7	-0.8	-0.2	-0.9	-0.8	-0.7
Knowledge of foreign languages	-1.8	-1.1	-1.7	-1.5	-1.3	-1	-1.2
Ability to work in a team	-0.6	-0.6	-0.9	-0.7	-0.6	-1.3	-0.9
Communication skills	-1.2	-1	-	-0.7	-1.1	-1.3	-1.2
Organisational skills and abilities	-1.4	-1	-1.7	-0.5	-0.6	-1.1	-1.0
Mastery of necessary software	-0.4	-0.3	-1.1	-0.7	-0.3	-0.3	-0.4
Creativity	-1.1	-1	-1	-0.9	-0.7	-	-0.9
Self-presentation skills	-1.2	-0.9	-2.1	-0.3	-0.6	-1	-0.9
Specialised theoretical knowledge	0.4	0.2	-0.4	0	0.6	0.7	0.5
Acquisition of financial resources	-0.5	-0.7	-1.5	-0.2	-0.6	-0.6	-0.6

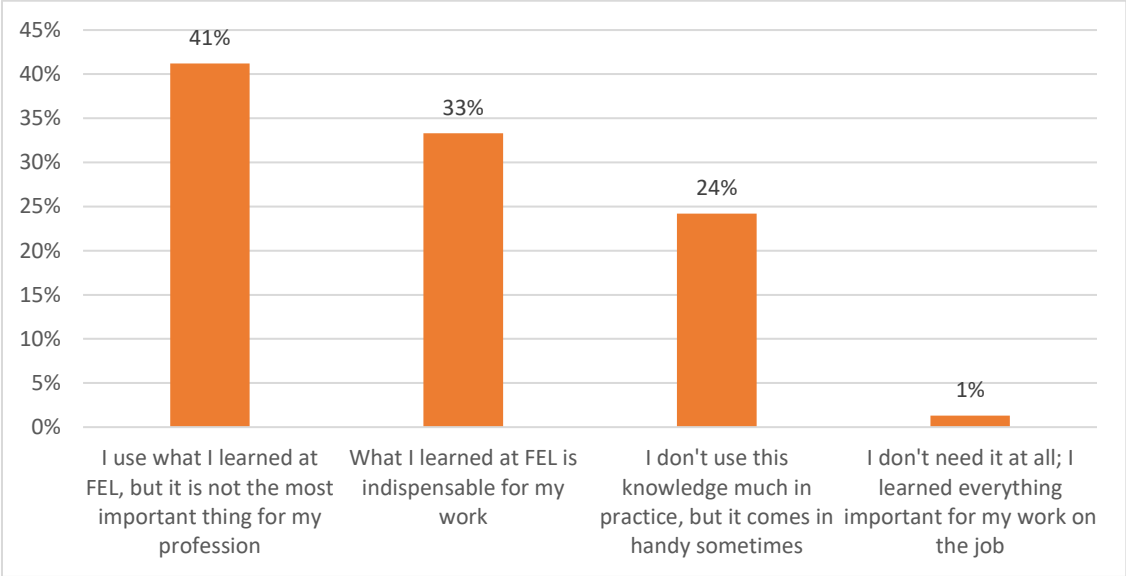
Graduates were asked to select the statement that best describes how they use the knowledge acquired at FEL in their current professional work. One-third of them (33%) agreed with the statement that what they learned at FEL is indispensable for their work. In the previous survey, 29% responded this way. Two-fifths of respondents (41%) believe that although they use what they learned at FEL, it is not the most important thing for their profession. In 2019, 49% responded this way. A quarter of graduates do not use the knowledge they acquired at FEL very much in practice; it is only useful to them occasionally. Only 1% of graduates say that they do not need the knowledge they acquired at FEL at all in practice.

It is not surprising that there are significant differences between bachelor's and master's degree holders. Graduates of master's programmes more often rate the knowledge acquired at FEL as indispensable for their professional careers (35% of master's graduates compared to 24% of bachelor's graduates), whereas graduates of bachelor's programmes more often responded that they do not use the knowledge from FEL very much in practice, but that it is sometimes useful (31% of bachelor's graduates compared to 23% of master's graduates).

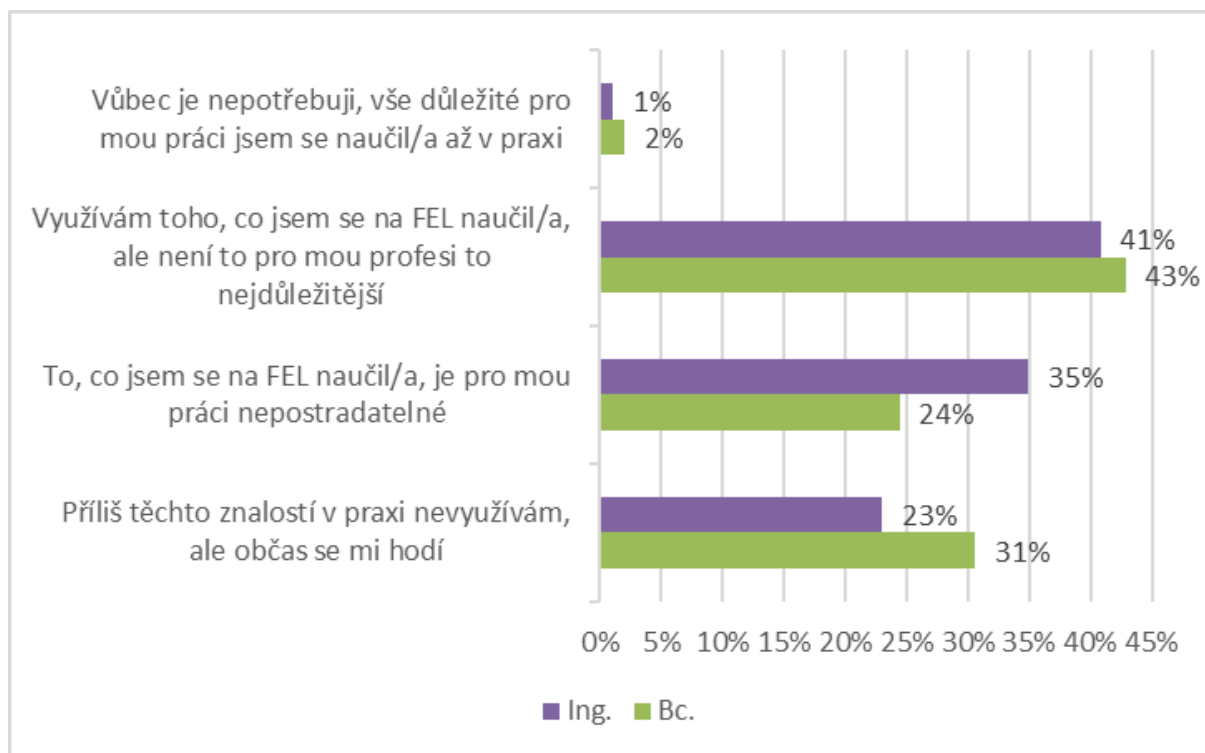
The views of Master's programme graduates on the applicability of knowledge from FEL have not changed significantly since the last survey. For half of them, the knowledge acquired at FEL is an advantage in practice, but not a necessity, while roughly a quarter consider it indispensable in their profession.

When comparing individual study programmes, there is a significantly higher proportion of graduates who cannot do without the knowledge gained at FEL in their work in the OI study programme.

Graph 20: Evaluation of knowledge and skills acquired at FEL in terms of current practice, n=318



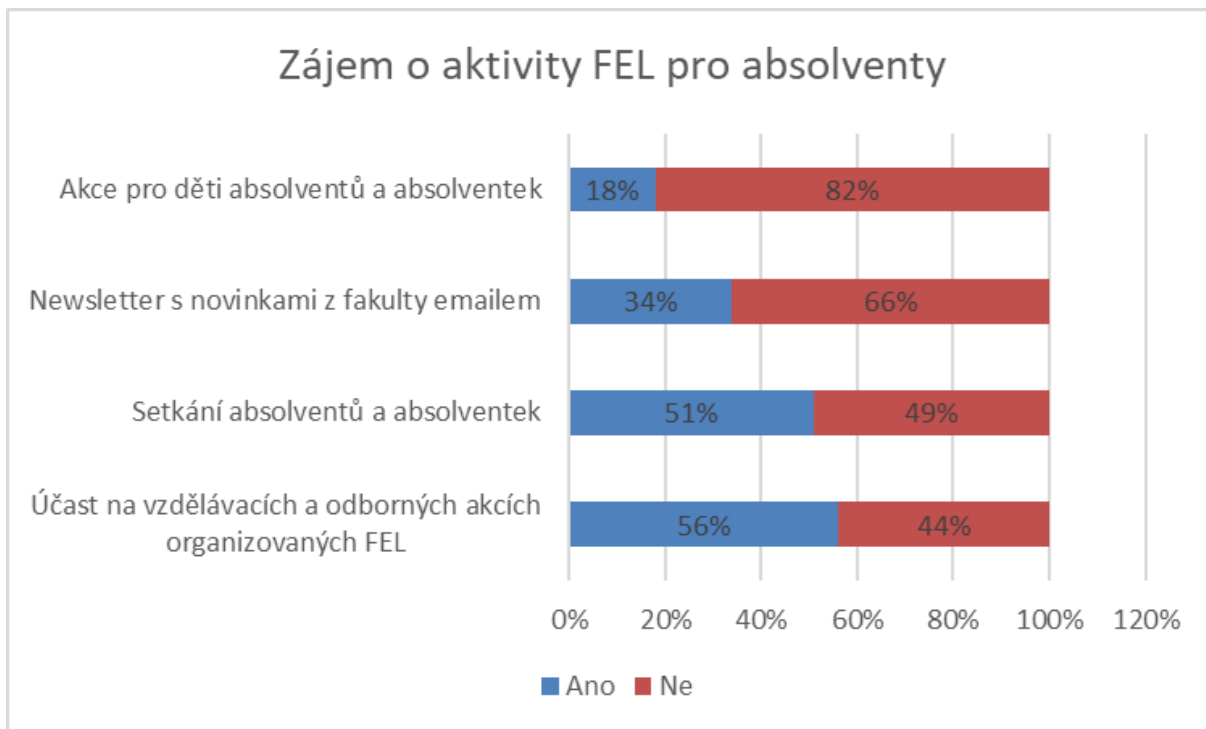
Graph 21: Evaluation of knowledge and skills acquired at FEL in terms of current practice according to education attained, n=318



3.9 Further cooperation with FEL and the Elektra association

The relationship of graduates to FEL is also expressed through their willingness to participate in FEL educational and professional events even after graduation. Fifty-six per cent of respondents expressed an interest in participating in further education at FEL. Compared to the previous survey, this represents a decrease of 11 percentage points. Another way of maintaining contact with graduates is to organise meetings for them. Fifty-one per cent of the graduates surveyed are interested in participating in such an event. One in three graduates (34%) would be interested in receiving an electronic newsletter. Here, too, there has been a decline, specifically by 10 percentage points. We asked a new question in the survey about interest in events for graduates' children – 18% responded positively. The result is undoubtedly influenced by the fact that graduates of this age are often just starting families or do not yet have children.

Graph 22: Are you interested in any of the following activities to maintain contact with FEL?
n=326



Only 29% of the graduates surveyed are familiar with the Elektra alumni association, while 1% declared membership. The main reasons given for "non-membership" in the Elektra association are the limited time available to graduates and a general lack of interest in association activities. 11% said they would consider membership if the association developed more interesting activities.

Graph 23: **Are you familiar with the Elektra alumni association?**, n=326

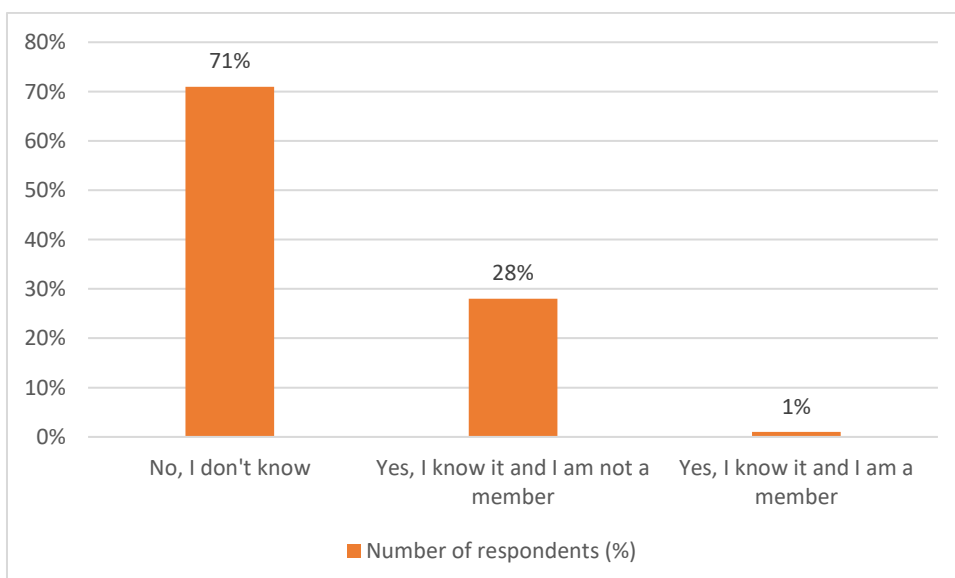
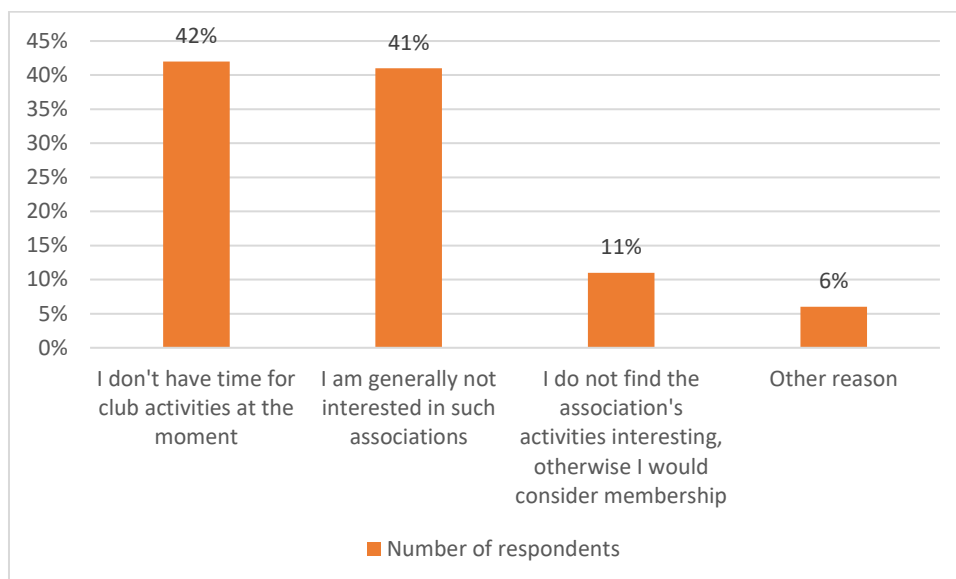


Chart 24: **What is the main reason why you are not a member of the Elektra alumni association?** Only those who are familiar with the Elektra association but are not members, n=91



4. Demographic structure of the sample of respondents

Table 12 Distribution of the sample by gender

Gender	Number	%
Male	277	86
Female	46	14
Total	323	100

Table 13 Distribution of the sample by place of residence – region/country

	Number of respondents	Number of respondents (%)
Prague	225	69
Central Bohemian Region	31	10
South Bohemian Region	11	3
Ústí Region	10	3%
Hradec Králové Region	6	2
Zlín Region	4	1
South Moravian Region	4	1
Liberec Region	3	1
Pilsen Region	3	1
Pardubice Region	2	1
Vysočina Region	2	1
Moravian-Silesian Region	1	0
Abroad (outside Slovakia)	22	7
Slovakia	2	1

Table 14 Distribution of the sample by region/country in which the respondent completed secondary school

Region	Number of respondents	Number of respondents (%)
Prague	121	37
Central Bohemian Region	37	11
South Bohemian Region	27	8
Ústí Region	24	7
Liberec Region	12	4
Hradec Králové Region	11	3
Zlín Region	9	3
Vysočina Region	9	3
Pilsen Region	8	2
Moravian-Silesian Region	8	2
Pardubice Region	8	2
Olomouc Region	7	2
Karlovy Vary Region	7	2
South Moravian Region	1	0
Abroad (outside Slovakia)	21	6
Slovakia	16	5